Massachusetts HMO Rate Analysis

Spending and Utilization in 2001, 2002, 2003 (budgeted), and 2004 (projected)

Massachusetts Division of Health Care Finance and Policy

March 2004

Mitt Romney, Governor
Commonwealth of Massachusetts

Ronald Preston, Secretary
Executive Office of Health and Human Services

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Acknowledgments

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A Word About the Division

The Division of Health Care Finance and Policy is responsible for collecting, analyzing, and disseminating information on the delivery of health care in Massachusetts; setting rates of payment for health services purchases by the Commonwealth; administering the Uncompensated Care Pool, the fund that reimburses hospitals and community health centers for services provided to underinsured individuals; and overseeing the state's Qualifying Student Health Insurance Program, a state-mandated health insurance plan that requires all institutions of higher learning to provide health insurance for their students. The Division is also responsible for studying the cost and accessibility of health insurance for all residents.

The effectiveness of the health care system depends in part upon the availability of information. In order for this system to function properly, purchasers must have accurate and useful infor-

Mission

To improve the delivery and financing of health care by providing information, developing policies, and promoting efficiencies that benefit the people of Massachusetts. Agency goals:

- Assure the availability of relevant health care delivery system data to meet the needs of health care purchasers, providers, consumers and policy makers;
- Advise and inform decision makers in the development of effective health care policies;
- Develop health care pricing strategies that support the cost effective procurement of high quality services for public beneficiaries; and
- Improve access to health care for low-income uninsured and underinsured residents.

mation about quality, pricing, supply and available alternatives. Providers need information on the productivity and efficiency of their business operations to develop strategies to improve the effectiveness of the services they deliver. State policy makers need to be advised of the present health care environment, as they consider where policy investigation or action may be appropriate.

As part of its health care information program, the Division publishes reports that focus on various health care policy and market issues.

Introduction

This report presents standardized measures for expenses and health care utilization that allow readers to make comparisons across HMOs. It provides a foundation for purchasers in negotiating costs and services with health plans, and assists health policy makers in identifying policy changes that could improve health care. Understanding the basis for HMO rate calculations allows purchasers to ask more knowledgeable questions about the adjustments used to arrive at specific premiums during the contracting process. Differences between health care expenses for individual purchasers and those listed in this report may reflect differences of comprehensiveness in benefits or variation in the demographics or health status of covered employees.

Similar to last year's report, information for this report was provided by health plans through the Group Insurance Commission (GIC). Health plans submit data to the GIC as part of the GIC's annual rate renewal process. The GIC is a quasi-independent state agency that purchases health insurance and other benefits for Commonwealth of Massachusetts employees and retirees, and their dependents and survivors. The GIC also covers the personnel of housing and redevelopment authorities, and retired municipal employees and teachers in certain governmental units. More information on the GIC is available in Data Caveats. The GIC's six HMO contract renewals were from:

- CIGNA (CIGNA)
- Fallon Community Health Plan (Fallon)
- Harvard Pilgrim Health Care (HPHC)
- Health New England (Health NE)
- Neighborhood Health Plan (NHP)
- Tufts Health Plan (Tufts)

Blue Cross Blue Shield sells HMO products in Massachusetts, but does not contract with the GIC, and therefore does not submit rate renewal data to the GIC. However, Blue Cross Blue Shield was given the opportunity to submit information for this report and declined.

How to Use this Report

This report describes, for each of six HMOs, actual (2001 and 2002), budgeted (2003) and projected (2004) expenses and utilization for a particular service or group of services. In some instances, data from 1999 and 2000 are also reported. As you look at this report in preparation for selecting or negotiating with one or more health plans, be sure to compare health plans with one another and with themselves over time. Below are a few examples of numbers to compare.

Costs and Utilization

Compare HMOs' expenses and utilization of services and how they've changed from 2001 to 2002. Also compare plans' projections from 2002 to 2004 (remember to divide this number by two to estimate an annual rate of change).

- Take note if a health plan is the most expensive and is projecting a higher rate of increase than other plans.
- Do some plans consistently under- or over-budget? If so, by how much?
- Are a plan's costs increasing faster than utilization? If cost increases are far outstripping utilization, find out where the money is going—to profits, hospitals, or doctors? Does this plan have less control over its costs than other plans?
- If one plan's numbers are different from most other plans, can the plan explain why?

Your benefits may differ from a plan's average benefits so you should expect corresponding differences in the premiums you pay from their expenses in this report. Can your plan describe the differences satisfactorily to you?

Managed Care: The "managed" aspect of health plans is often neglected in the selection and negotiation processes with health plans because it is more difficult to measure and, therefore, understand. This is the other side of the dollar equation, i.e., what do you get for your money.

- Are there people in your business or their dependents who could benefit from a disease management program, which might cost more now, but save money later?

- If a health plan offers disease management and/or other case management, can it document its success? Beware of health plans that experience or predict large increases in utilization if that health plan claims to be successful at managing people's health behavior/outcomes.

- Would it be worthwhile for your business to seek help, for example, from an independent disease management or utilization review company?

- Will an HMO or disease management company guarantee savings?

Data Caveats

Massachusetts HMO Rate Analysis (2003) reports cost data that were provided by six of Massachusetts' prominent health insurers: CIGNA, Fallon Community Health Plan, Harvard Pilgrim Health Care, Health New England, Neighborhood Health Plan, and Tufts Health Plan. These plans reported their experience over four years, from 2001 to 2004, according to the state fiscal year (July 1 to June 30). An exception was Tufts Health Plan, which reported calendar year data for 2003 and 2004. Tufts' numbers for all non-medical expenses, incentive pool, and withhold also differ for several reasons: 1) its 2001 and 2002 data are GIC specific and 2) its 2003 and 2004 estimates are based upon Tufts' fully insured book of business. Consequently, Tufts' trends are affected by two variables: changes over time and differences between the GIC experience and Tufts' book of business.

The plans' reports are not audited, although GIC staff and its consultants reviewed the numbers for reasonableness. Data used for this report include only the community rated expenses and hospital utilization for the fully insured HMO populations that these plans serve in Massachusetts (except for Tufts as noted above). These HMOs may also sell other products such as preferred provider organizations and third party administrative services to employers who are self-funded.

Data included in this report should be used with caution. Health plans submit actual and projected expenses on a per member per month (PMPM) basis. However, this report does not control for the different methodologies used by health plans that may adjust for factors such as age, sex, industry, geography and experience to derive actual premium rates. If a plan did not submit a data element, no bar will appear in the corresponding graph. If a plan described its method of reporting in a way that was different from the way the GIC requested it, it is noted. In these instances, a plan's data may be omitted.

Actual versus Budgeted Expenses

Figures 1 through 4 on pages 8-9 compare actual expenses to budgeted expenses for 2001 and 2002. In total, eight categories of expenses are examined including total expenses, medical expenses, non-medical expenses, outpatient hospital expenses, inpatient hospital expenses, physician services, outpatient prescription drug expenses, and administration expenses. By comparing budgeted expenses to actual expenses, we can see how well an HMO plan predicts its expenses and determine if a plan has a tendency to over- or under-budget in certain categories.

- In 2001 and 2002 Tufts over-budgeted in seven out of eight categories.
- All plans over-budgeted for outpatient prescription drug expenses in 2001 and 2002; the range was between 3.60% and 20.57% in 2001 and between 2.94% and 10.31% in 2002 (see Figure 4 on page 9).

Note: A positive percentage means a plan over-budgeted and a negative percentage means a plan under-budgeted.

Figure 1. HMOs Percent Change for Actual vs. Budgeted Total Expenses PMPM, 2001 and 2002

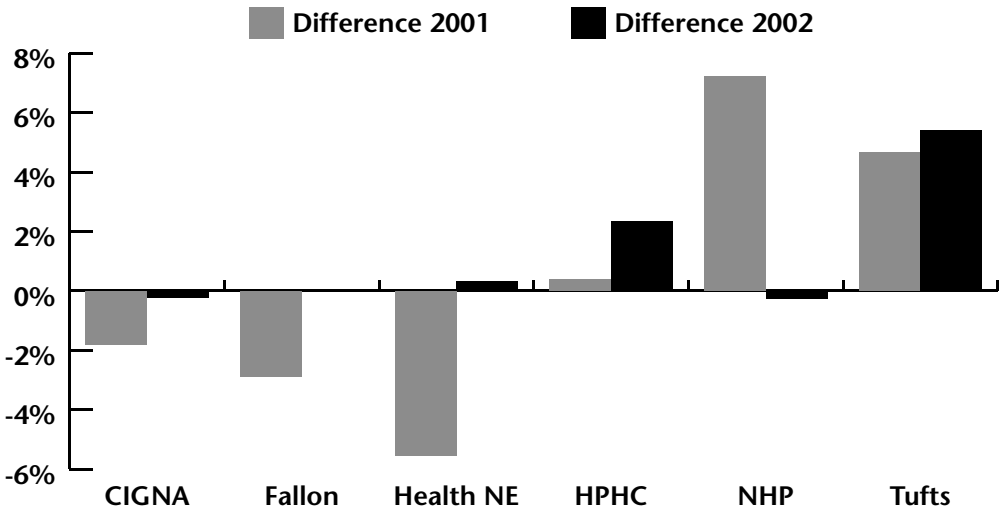


Figure 2. HMOs Percent Change for Actual vs. Budgeted Total Medical Expenses PMPM, 2001 and 2002

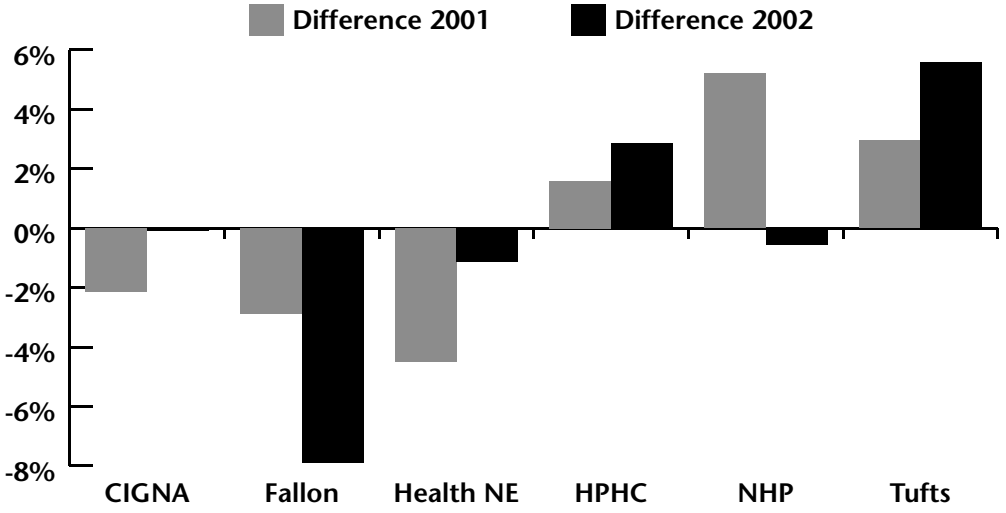


Figure 3. HMOs Percent Change for Actual vs. Budgeted Total Non-Medical Expenses PMPM, 2001 and 2002

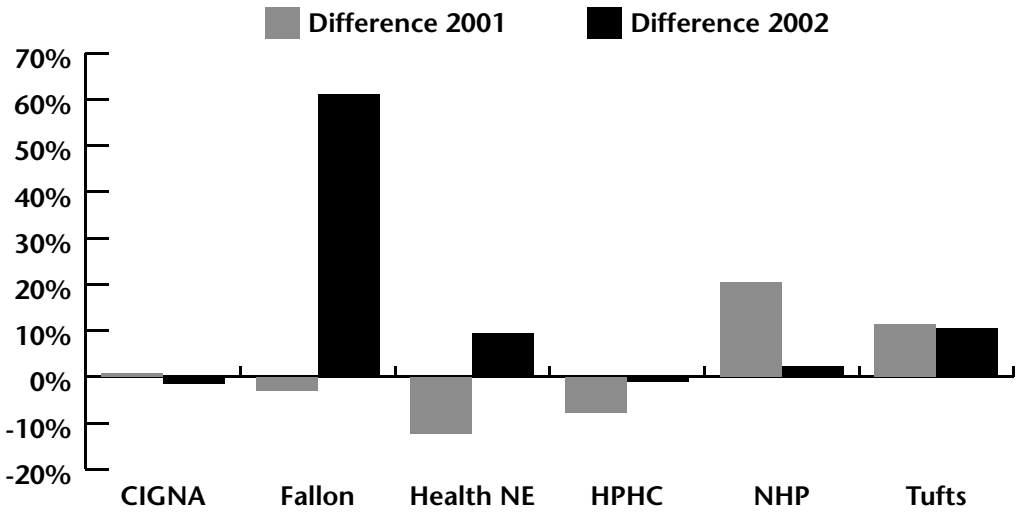
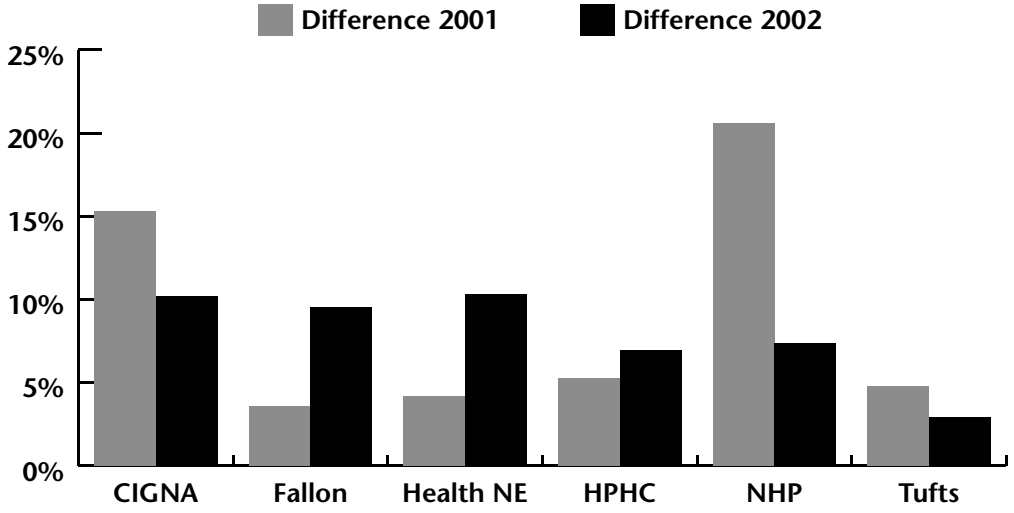


Figure 4. HMOs Percent Change for Actual vs. Budgeted Total Outpatient Prescription Drug Expenses PMPM, 2001 and 2002

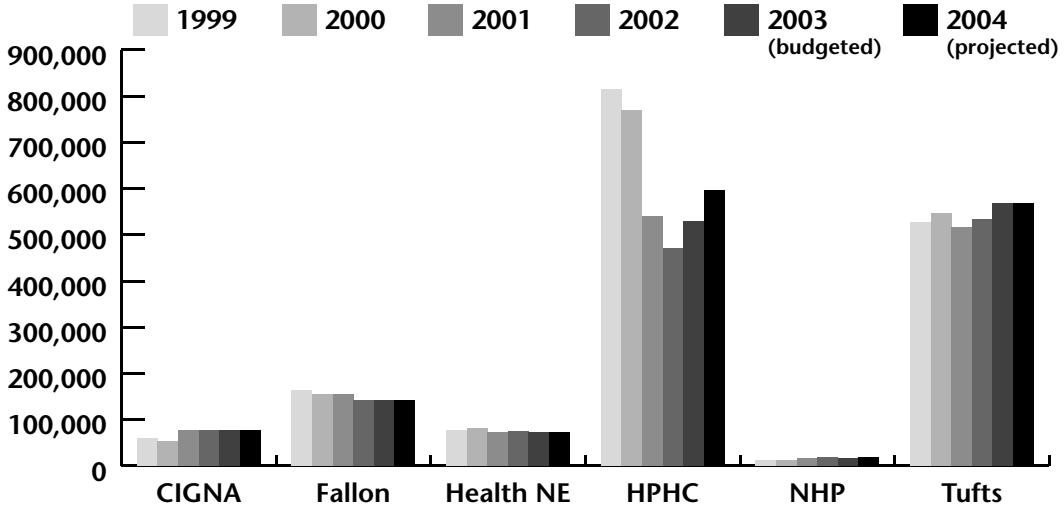


Membership

It is important to note the size of an HMO's membership (see Figure 5 below). Smaller HMOs might show greater variation, particularly for some of the more disaggregated measures, because they have fewer members. Larger numbers tend to smooth out results.

- In 2002, the sum of all fully insured HMO enrollees was 1,315,251 across the six profiled plans, a 4.42% decrease from 2001. In fact, total membership has been decreasing since

Figure 5. HMO Enrollment: Total Members, 1999-2004



1999. However, much of this decline has been driven by HPHC, which suffered near collapse in 1999-2000. Excluding HPHC, the number of enrollees actually increases by 0.87% from 2001 to 2002.

- Losses in HMO enrollment may be a result of subscribers selecting less restrictive health plan products or an increase in enrollment in employer self-insured plans. A substantial percentage of the Massachusetts market is self-insured or self-funded.

Total, Non-Medical, and Medical Expenses

HMO spending is analyzed by examining medical and non-medical components. The "medical expense" component is defined as: the total cost to the HMO for all medical services provided to members in the defined population. Expenses are usually presented as dollars PMPM. While the medical component excludes member copayments, it includes primary care physician management fees and physician incentives, bonuses, and risk sharing adjustments. The non-medical component consists of the HMOs' general administrative expenses plus reinsurance, as well as contributions to reserves and/or returns to shareholders. The Total Expenses PMPM represents the total amount needed to cover all benefits for an HMO's non-Medicaid, non-Medicare, fully insured membership. Differences in spending PMPM between individual HMOs can

Figure 6. Total Expenses PMPM, 1999-2004

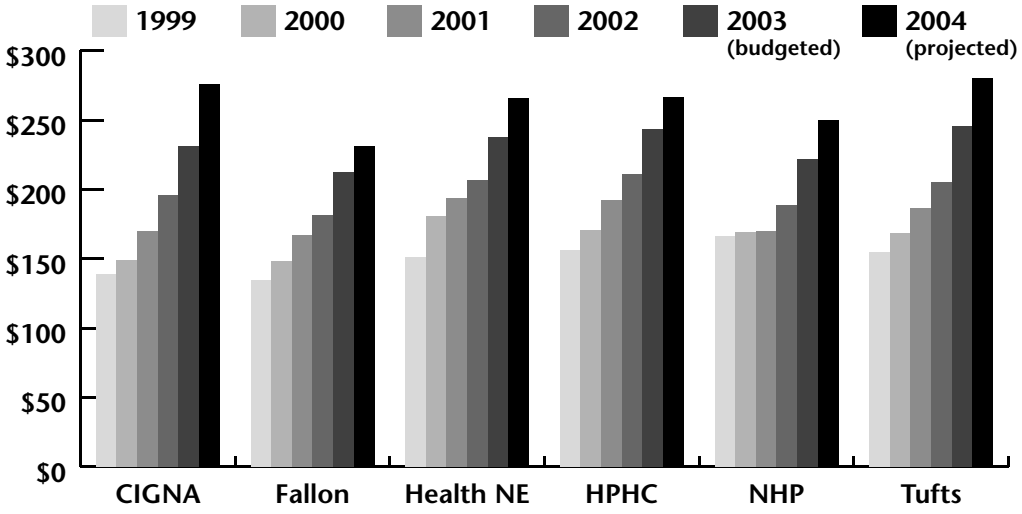
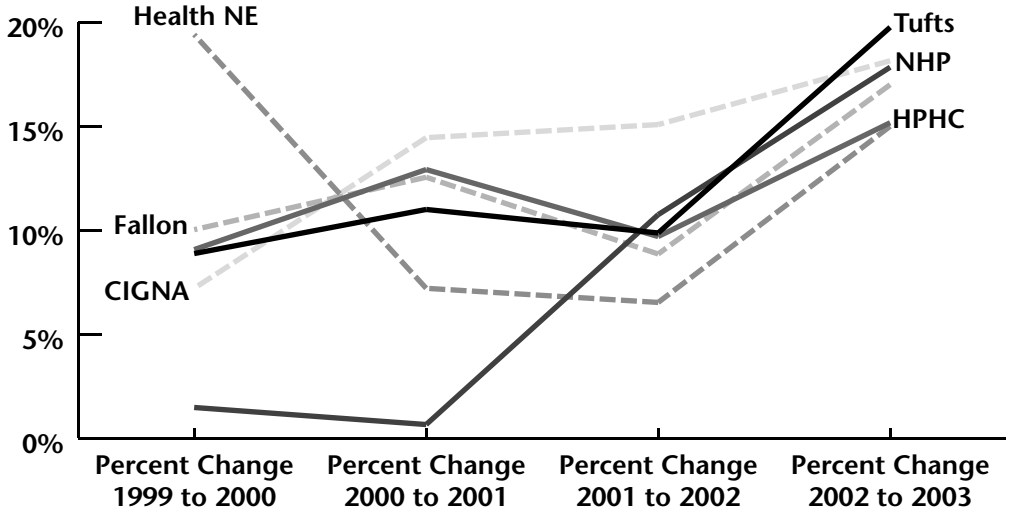


Figure 7. Yearly Percent Change in Total Expenses, 2000-2003



result from differences in the utilization of health care services or differences in the unit costs of each service.

- Since 1999 total expenses PMPM have increased for all plans, with Fallon maintaining the lowest total expenses each year (see Figure 6 on page 13). Both medical and non-medical expenses have contributed to this increase; the average total medical expenses PMPM was $175.88 in 2002 (an increase of 11% over 2001), while the average total non-medical expenses PMPM was $21.68 in 2002 (an increase of only 3% over 2001). Thus, medical expenses disproportionately increased total expenses PMPM in two respects: medical expenses are a much larger proportion of total expenses, and the percent increase for medical expenses was nearly four times that of non-medical expenses.

- From 1999 to 2002, the average percent change from year to year in total expenses PMPM was 10% (see Figure 7 above). In 2002, the national average premium rate increase was 15.3% and for the East Region, it was 13.3%.[1] Thus, it appears that Massachusetts has kept below both the national average and the East region average. Projected increases from 2002 to 2003 range from 15% to 20%.

- When the total non-medical expenses PMPM (see Figure 8 on page 15) is compared with the total medical expenses PMPM (see Figure 9 on page 15), more variation is apparent among

(continued on page 16)

[1] http://www.hewitt.com.

Figure 8. Total Non-Medical Expenses PMPM, 2001-2004

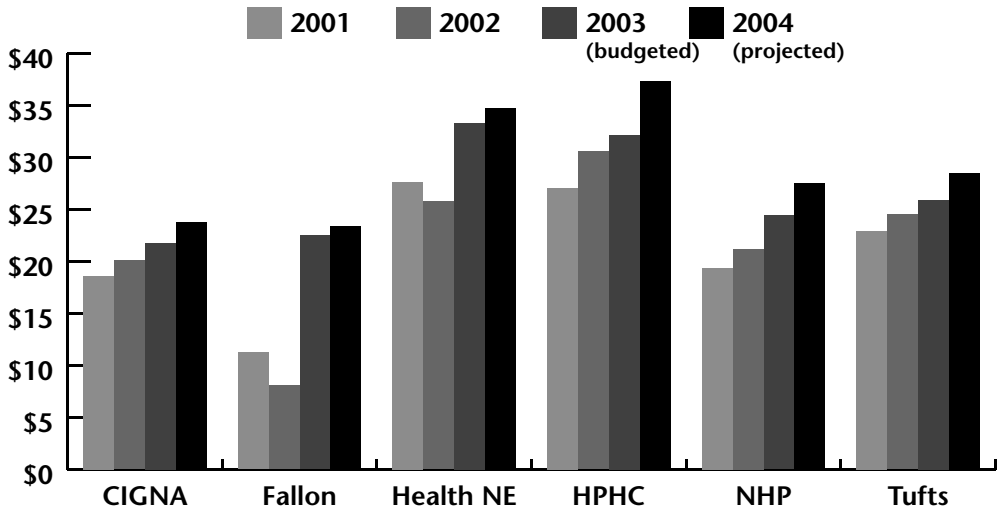
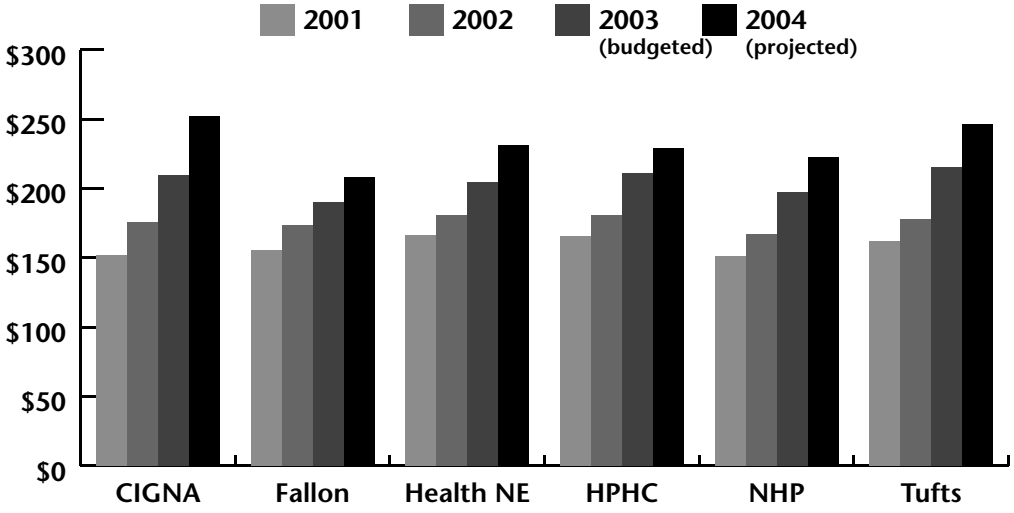


Figure 9. Total Medical Expenses PMPM, 2001-2004



the non-medical expenses than among the medical expenses. Between 2001 and 2002, non-medical expenses for HPHC increased at a faster rate than for the other plans, and Health NE's non-medical expenses decreased. Fallon's non-medical costs were low in 2001 and decreased in 2002; this is attributable, at least in part, to operating losses in 2001 and 2002. These operating losses were recorded as negative non-medical expenses.

Distribution of Total Expenses

In Figures 10 through 15 (below and on pages 17-19), each HMO's distribution of expenditures in 2002 can be examined.

- All plans spent the most on physician services with Fallon spending the highest proportion at 43%, and Tufts and CIGNA spending the lowest at 29%. For the outpatient prescription drugs category, there was not much variation among the plans with the majority of the plans spending about 14%. The ratios of plans' inpatient and outpatient hospital expenses varied considerably. NHP spent nearly twice as much on inpatient care as it did on outpatient care. CIGNA, on the other hand, spent 37% more on outpatient care than on inpatient care. An HMO should be able to explain why it has large variations between its distribution of expenses and those of other plans.

Figure 10. CIGNA Distribution of Total Expenses, 2002

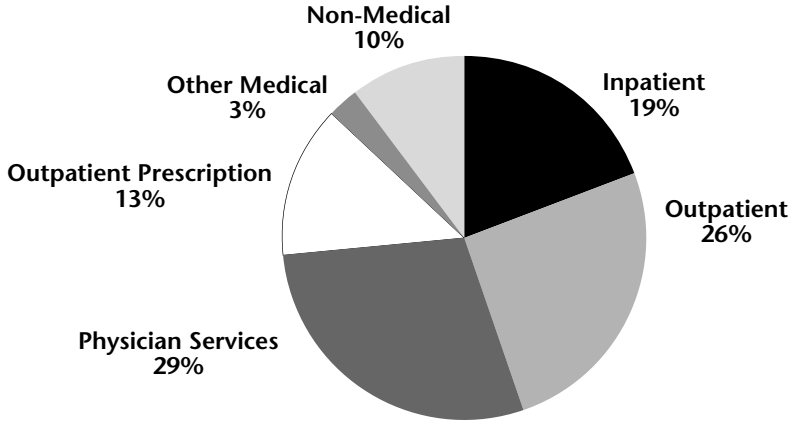


Figure 11. Fallon Distribution of Total Expenses, 2002

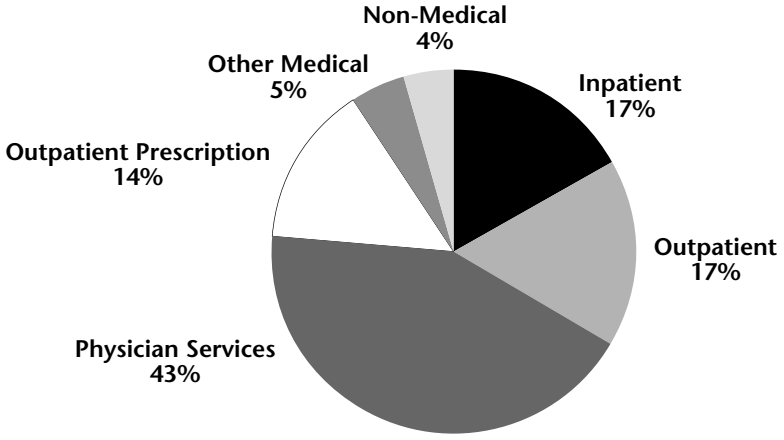


Figure 12. Health NE Distribution of Total Expenses, 2002

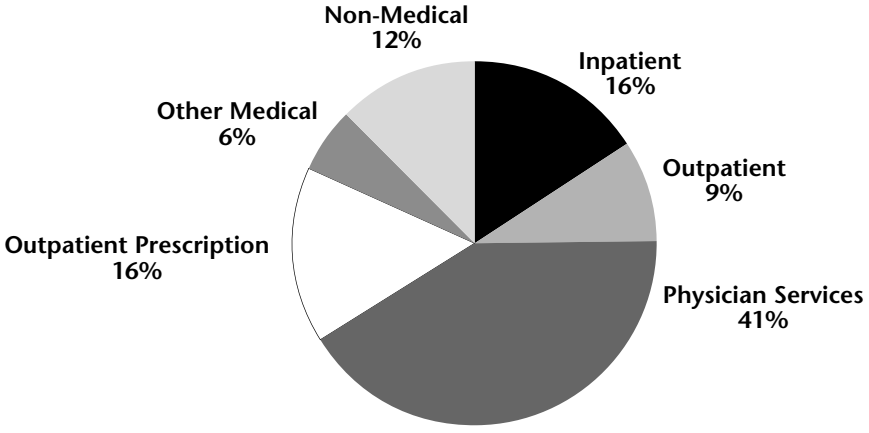


Figure 13. HPHC Distribution of Total Expenses, 2002

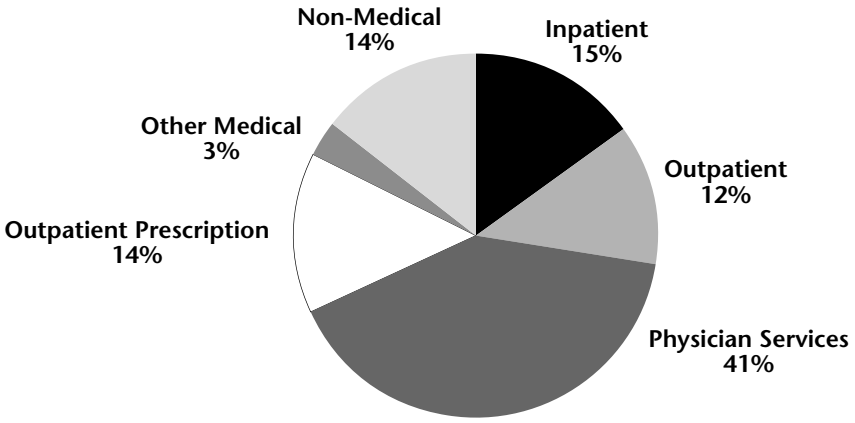


Figure 14. NHP Distribution of Total Expenses, 2002

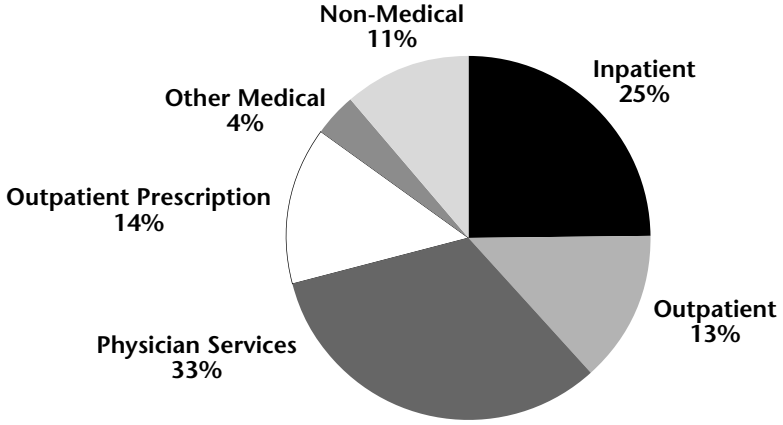
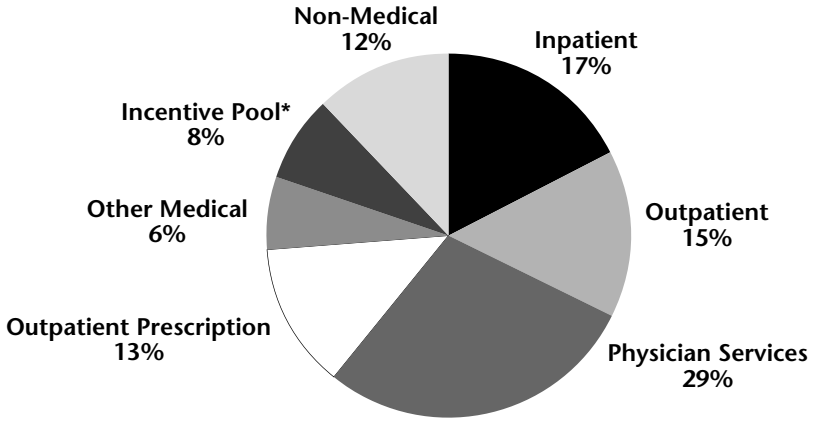


Figure 15. Tufts Distribution of Total Expenses, 2002



** withhold adjustments paid to providers for performance.*

Inpatient Care

Inpatient Hospital

"Inpatient expenses" are defined as: all acute and non-acute hospital inpatient expenses, excluding professional expenses. A high percentage of spending on inpatient services may indicate an older population (with more chronic illness), poor medical management, or a higher-than-average inpatient cost per day. Among the reasons for low inpatient expenses are effective medical management, shifting the site of care to "non" inpatient providers, a healthier population, aggressive discounts negotiated by health plans, and a larger proportion of utilization in less expensive community hospitals.

- The average percent increase for total inpatient hospital expenses PMPM from year to year was slightly less than the average percent change in total expenses PMPM. This varied by health plan as inpatient hospital expenses increased faster than total expenses for some plans, but not for others. NHP had the highest inpatient hospital cost among all plans from 1999 to 2002 (see Table 1 below). Between 2001 and 2002, hospital utilization increased 17.5% for NHP. Fallon had the lowest total inpatient hospital expenses PMPM from 1999 to 2002, despite a 12.7% increase from 2001 to 2002 (see Figure 16 on page 22).

Table 1: Inpatient Hospital Cost and Utilization, 2001-2002

	Inpatient Hospital Cost PMPM			Inpatient Days per 1,000 Members			Inpatient Cost per Day		
HMO	2001	2002	Percent Change	2001	2002	Percent Change	2001	2002	Percent Change
CIGNA	$33.22	$37.62	13.2%	227.78	253.24	11.2%	$1,676.94	$1,708.13	1.9%
Fallon	$27.07	$30.50	12.7%	226.30	225.37	-0.4%	$1,305.47	$1,454.63	11.4%
Health NE	$31.62	$32.59	3.1%	312.09	320.87	2.8%	$1,300.00	$1,290.00	-0.8%
HPHC	$31.40	$31.78	1.2%	252.80	236.97	-6.3%	$1,409.68	$1,738.94	23.4%
NHP	$39.43	$46.75	18.5%	256.40	301.20	17.5%	$1,739.00	$1,749.00	0.6%
Tufts	$34.16	$35.23	3.1%	242.64	243.21	0.2%	$1,647.05	$1,750.56	6.3%

- In 2002, Health NE, which is owned by Bay State Medical Center, had the highest total inpatient acute days per 1,000 members (see Figure 17 on page 23). Only Health NE had a reduction in total inpatient acute cost per day (see Figure 18 on page 23) from 2001 to 2002. Health NE also was the lowest among the plans in acute cost per day while Tufts was the highest. HPHC had the largest percent increase (23.4%) from 2001 to 2002, which caused it to go from one of the lowest among plans to one of the highest in total inpatient acute cost per day. However, HPHC is predicting that its costs per day decreased in 2003. Fallon's 11.4% increase in costs per day between 2001 and 2002 pales in comparison to its 56.6% increase from 1999 to 2000.

- There was no clear trend for average length of stay (ALOS) among the health plans (see Figure 19 on page 24). However, there was a significant drop in ALOS for Fallon between 2000 and 2001. More information is required to determine the reason behind this drop.

- Table 1 on page 21 facilitates comparisons of inpatient costs, utilization, and facility costs per day among plans from 2001 to 2002. Changes in inpatient acute cost per day were the primary PMPM cost increases for Fallon and HPHC. It is surprising that inpatient acute costs per day would increase 23% for HPHC and result in only a 1.2% increase in inpatient costs PMPM, even accounting for 6% fewer days.

Figure 16. Total Inpatient Hospital Expenses PMPM, 1999-2004

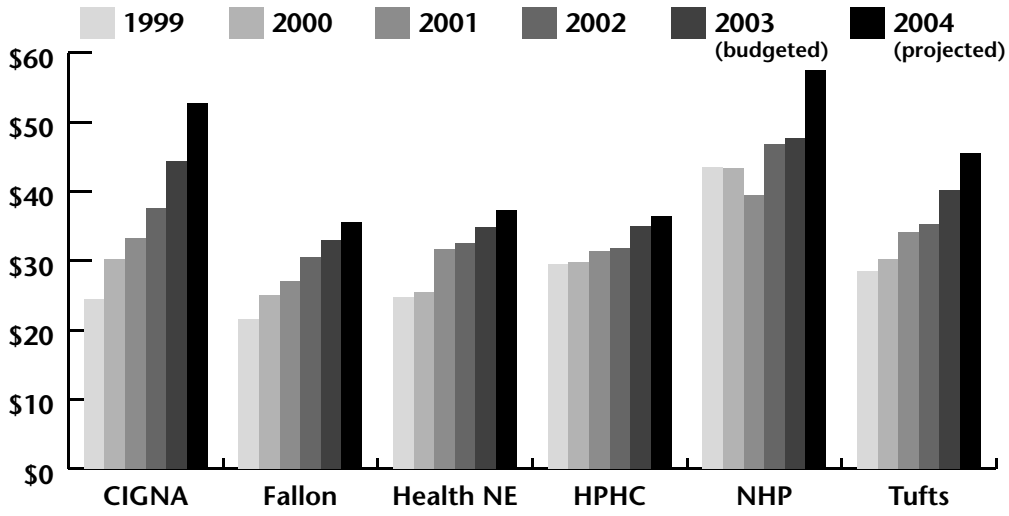


Figure 17. Total Inpatient Acute Days per 1,000 Members, 1999-2004

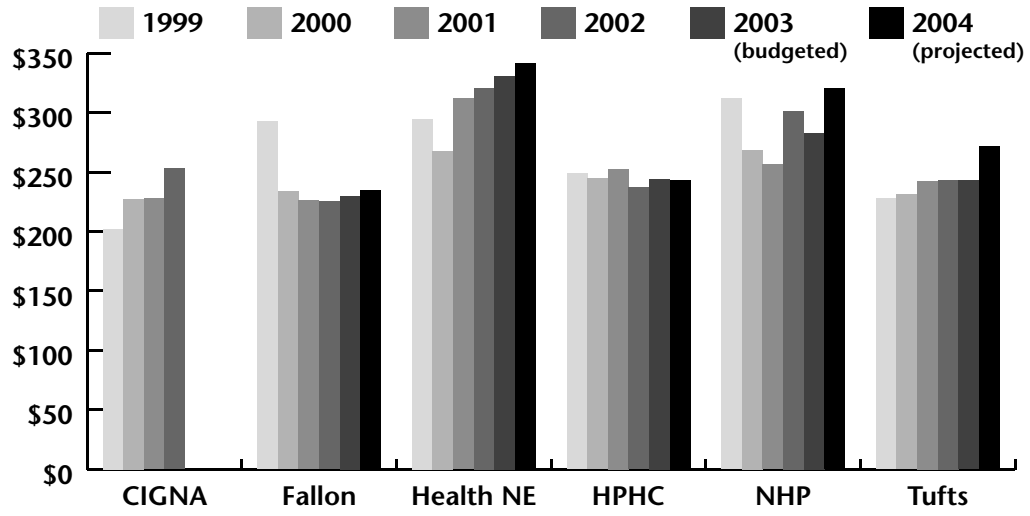


Figure 18. Total Inpatient Facility Acute Cost per Day, 1999-2004

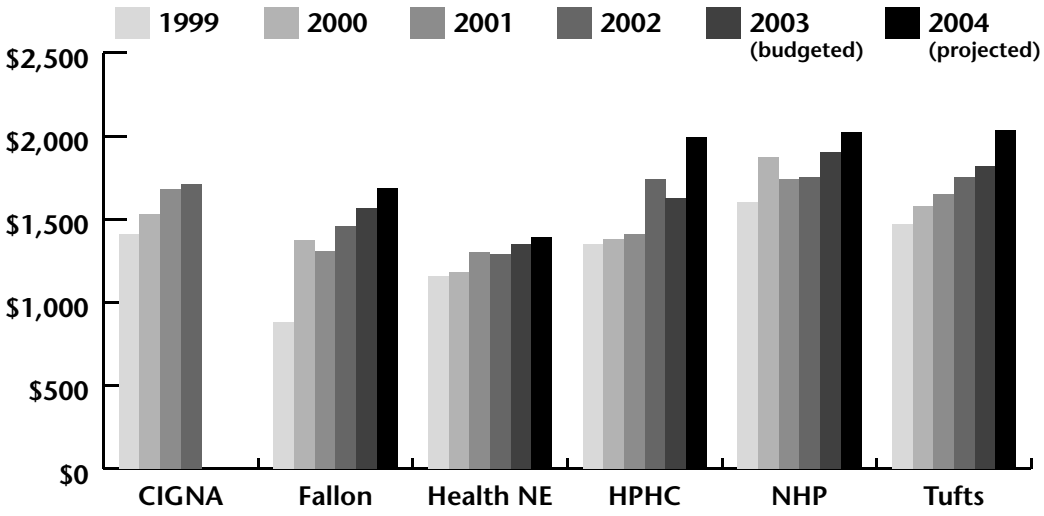
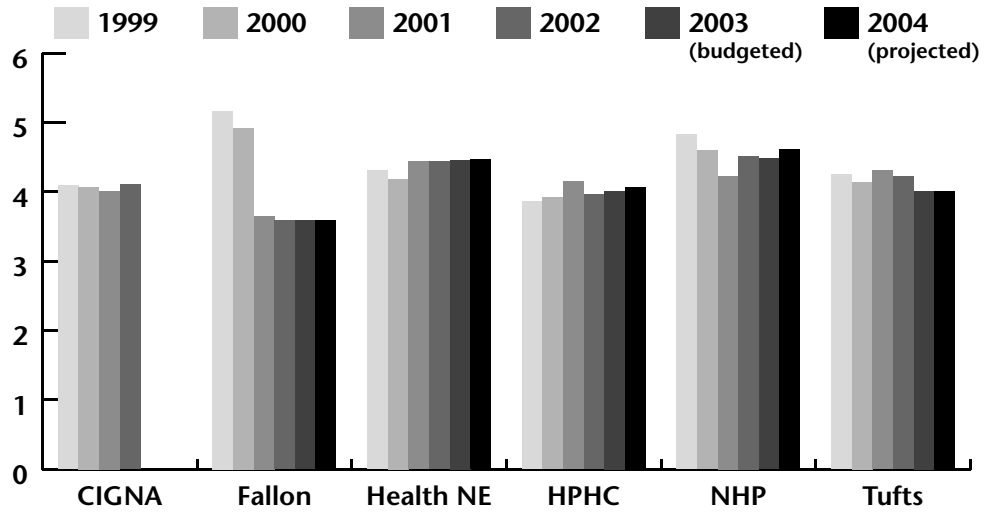


Figure 19. Acute Care ALOS in Days, 1999-2004



Inpatient Hospital: Distribution of Inpatient Hospital Expenses

- The distribution of inpatient hospital spending in 2002 is examined in Figures 20 through 25 on pages 25-27. Inpatient hospital expenditures consist of medical, surgical, maternity well newborn, maternity sick newborn, mental health/substance abuse (MH/SA), and "other."

- All plans tended to spend the most on medical and surgical, and that accounted for approximately 75% of total inpatient hospital spending. Although Fallon's medical and surgical expenses totaled just over 50%, Fallon may have allocated some medical and surgical expenses into "other." "Other" inpatient hospital expenses comprises 26% of Fallon's total inpatient hospital expenses compared to only three to six percent for each of the other plans.

- NHP and CIGNA were at extremes for medical and surgical spending. NHP, which was the highest among the plans for medical, and lowest for surgical, spent almost twice as much as CIGNA on medical. Meanwhile, CIGNA spent over three times as much as NHP on surgical.

- HPHC spent the most on maternity well newborn and the least on maternity sick newborn. In contrast, Fallon spent the most on maternity sick newborn and the least on maternity well newborn.

- Each plan spent about the same percentage on MH/SA.

Figure 20. CIGNA Distribution of Inpatient Hospital Expenses, 2002

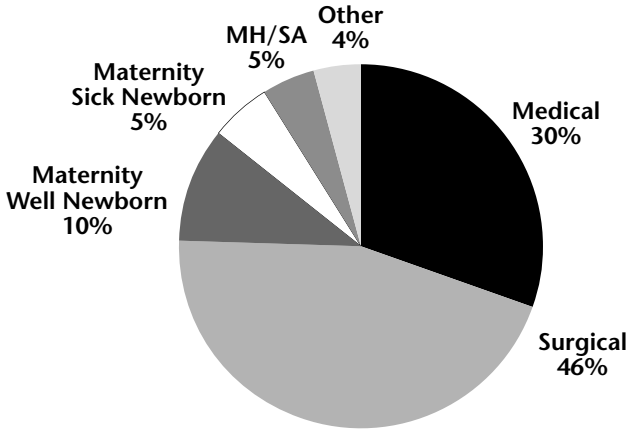


Figure 21. Fallon Distribution of Inpatient Hospital Expenses, 2002

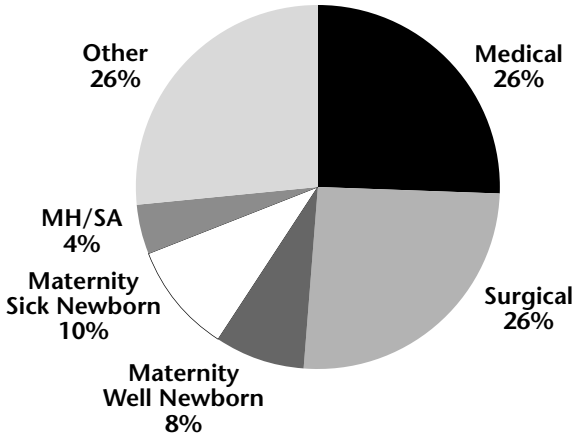


Figure 22. Health NE Distribution of Inpatient Hospital Expenses, 2002

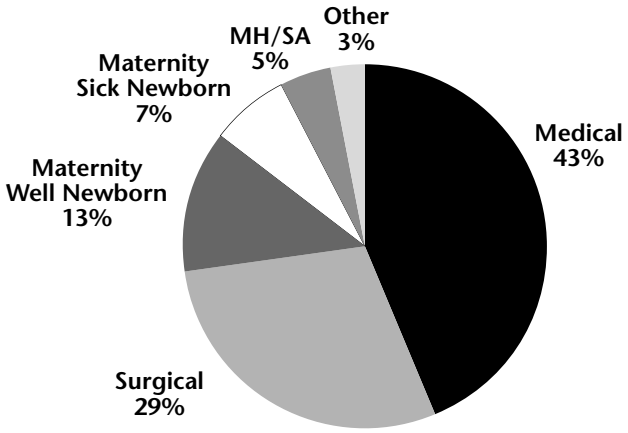


Figure 23. HPHC Distribution of Inpatient Hospital Expenses, 2002

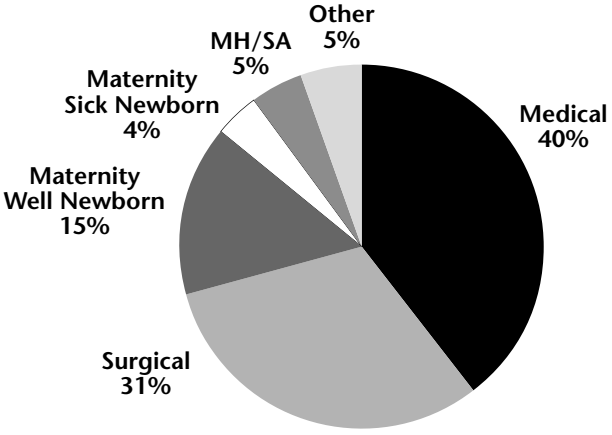


Figure 24. NHP Distribution of Inpatient Hospital Expenses, 2002

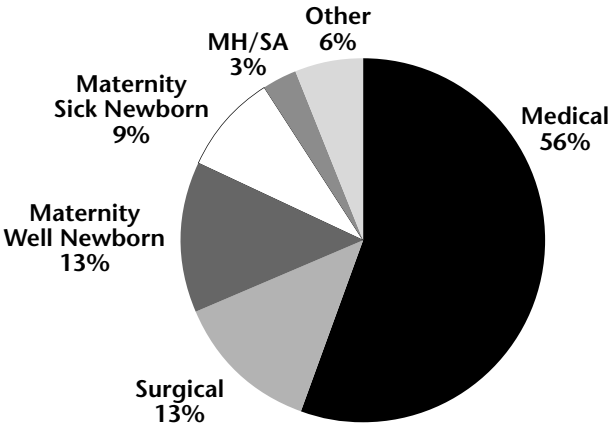
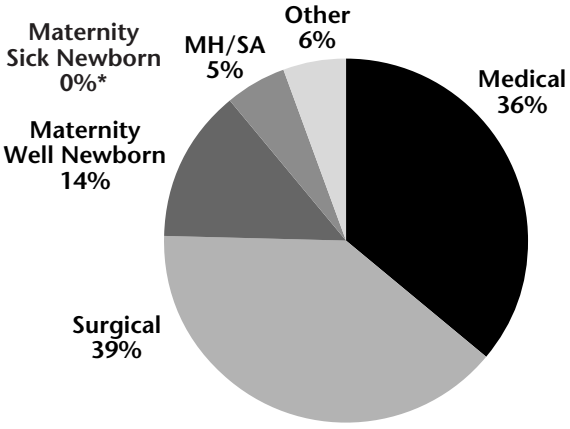


Figure 25. Tufts Distribution of Inpatient Hospital Expenses, 2002



** Tufts included its maternity sick newborn expenditures with its medical or surgical category.*

Outpatient Care

Outpatient Hospital

Outpatient hospital expenses include facility, but not physician, expenses. Outpatient expenses are broken out for several categories of care. This report includes information on total outpatient care, outpatient surgery, and Emergency Department (ED) services. Total ambulatory visits include all outpatient visits (to hospitals and medical offices).

- In 2002 outpatient hospital expenses, utilization, and costs per encounter increased for all plans (see Figures 26 through 28 on pages 30-31). The average percent change in total outpatient hospital expenses PMPM from year to year has been more than the average percent increase in total expenses PMPM from year to year. The average percent change in total outpatient hospital expenses PMPM was 15.3% from 2001 to 2002 compared to a 10.1% increase in total expenses (see Table 2 on page 31).

- From 1999 to 2002, CIGNA had the highest total outpatient hospital expenses PMPM (see Figure 26 on page 30). In 2002, CIGNA's outpatient hospital expenses were 65% higher than the plan with the second highest expenses. Like the other health plans, CIGNA is expecting hefty increases in outpatient costs (40%) through 2004. From 1999 to 2002 Health NE maintained the lowest total outpatient hospital expenses PMPM, despite the fact that it experienced the greatest percent increase in expenses over the same time period.

- Health NE had the fewest ambulatory visits per 1,000 members from 1999 to 2002, with 72% fewer visits in 2002 than the plan with the second fewest visits (see Figure 27 on page 30).

- It appears that differences in the way plans define "total ambulatory costs per encounter" account for some of the variation among and within plans. Fallon's and NHP's numbers are substantially different from the other plans and even across years within each plan (see Figure 28 on page 31). NHP's costs per encounter increased 167% from 2001 to 2002 (see Table 2 on page 31), while Fallon's decrease from $1,007.51 in 1999 to $153.18 in 2001 was even more dramatic. More consistent reporting is required to interpret these numbers.

Figure 26. Total Outpatient Hospital Expenses PMPM, 1999-2004

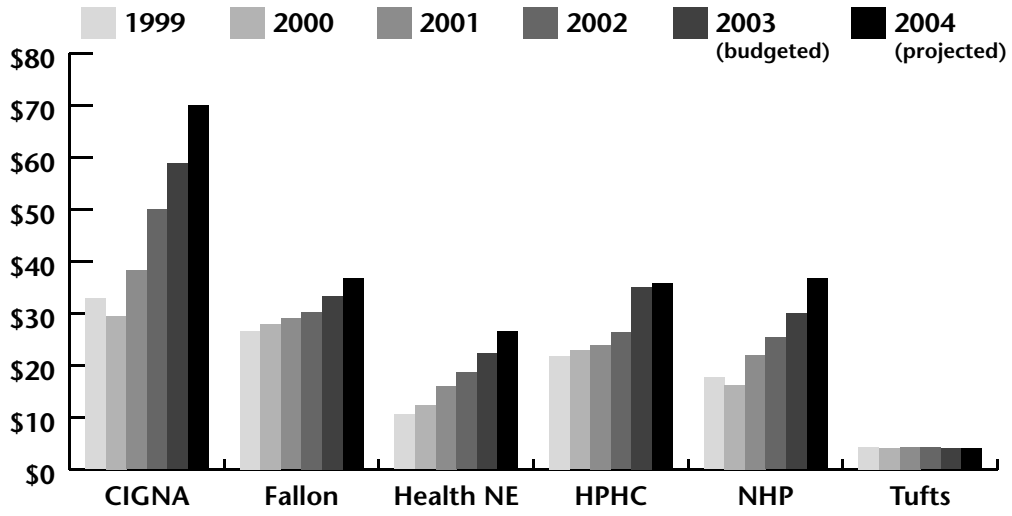


Figure 27. Total Ambulatory Visits per 1,000 Members, 1999-2004

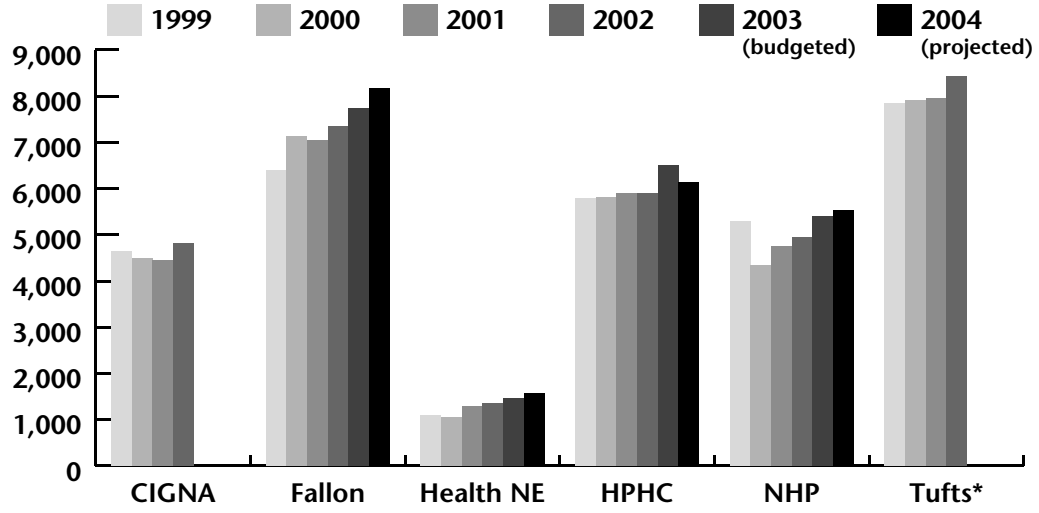


Figure 28. Total Ambulatory Cost per Encounter, 1999-2004

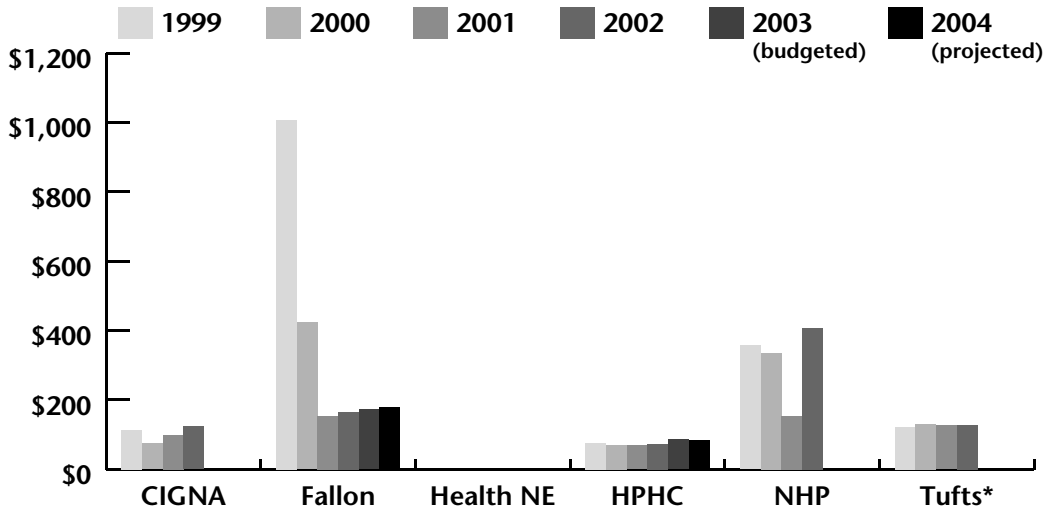


Table 2: Outpatient Hospital Cost and Utilization, 2001-2002

	Outpatient Hospital Cost PMPM			Outpatient Ambulatory Visits per 1,000 Members			Cost per Ambulatory Encounter		
HMO	2001	2002	Percent Change	2001	2002	Percent Change	2001	2002	Percent Change
CIGNA	$38.21	$49.96	30.8%	4454.43	4820.50	8.20%	$98.75	$122.85	24.4%
Fallon	$28.95	$30.21	4.4%	7040.09	7340.57	4.30%	$153.18	$164.48	7.4%
Health NE	$16.01	$18.63	16.4%	1291.30	1349.65	4.50%	N/A	N/A	N/A
HPHC	$23.87	$26.32	10.3%	5898.10	5899.10	0.02%	$68.62	$72.88	6.2%
NHP	$21.93	$25.34	15.5%	4744.80	4953.00	4.40%	$153.00	$408.00	166.7%
Tufts*	$26.26	$29.99	14.2%	7947.16	8430.74	6.10%	$125.87	$126.93	0.8%

** Tufts reported "units" instead of visits for utilization and cost in their budgeted and projected ambulatory care data and did not give the average number of units per patient encounter. Therefore, Tufts' numbers are omitted from the range and averages of health plans for 2003 and 2004.*

Outpatient: Emergency Services

CIGNA and NHP spent the least on physician services, but were the two most expensive plans for outpatient hospital emergency care. It is possible, however, that some plans cannot easily distinguish physician from hospital emergency costs.

- Hospital emergency services expenses PMPM and physician services emergency room expenses PMPM increased from 2001 to 2002 across the plans (see Figure 29 below, Figure 30 on page 33, and Table 3 on page 34). Each plan's combined emergency cost increases were higher than the corresponding change in their total expenses making emergency care cost more inflationary than total health care cost inflation.

- Changes in utilization ranged from a slight decline to an increase of 16% (see Figure 31 on page 33). HPHC and Health NE came in on the low end (–0.4% and 1.5% respectively) with Tufts on the high end (16.3%). For all plans except Tufts, the percent increase in emergency services cost outstripped the percent increase in utilization.

- It appears that differences in the way plans define "emergency services facility costs per encounter" (see Figure 32 on page 34) may account for some of the variation among plans. More consistent reporting is required to interpret this variation.

Figure 29. Outpatient Hospital Emergency Expenses PMPM, 2001-2004

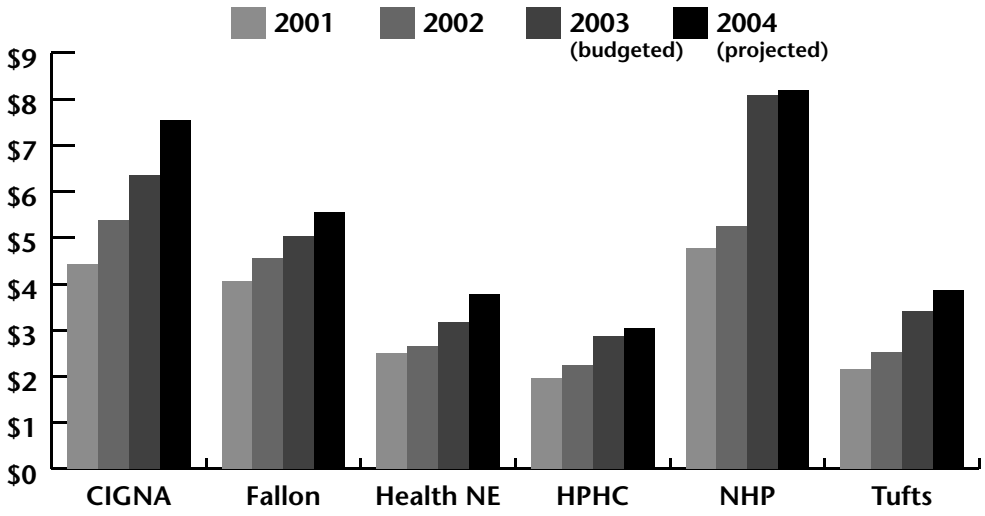


Figure 30. Physician Services Emergency Room Expenses PMPM, 2001-2004

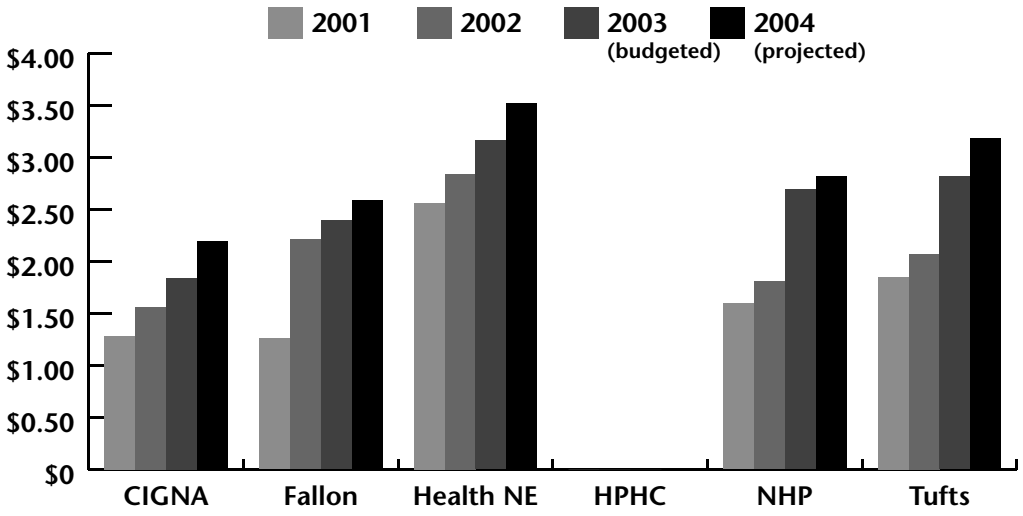
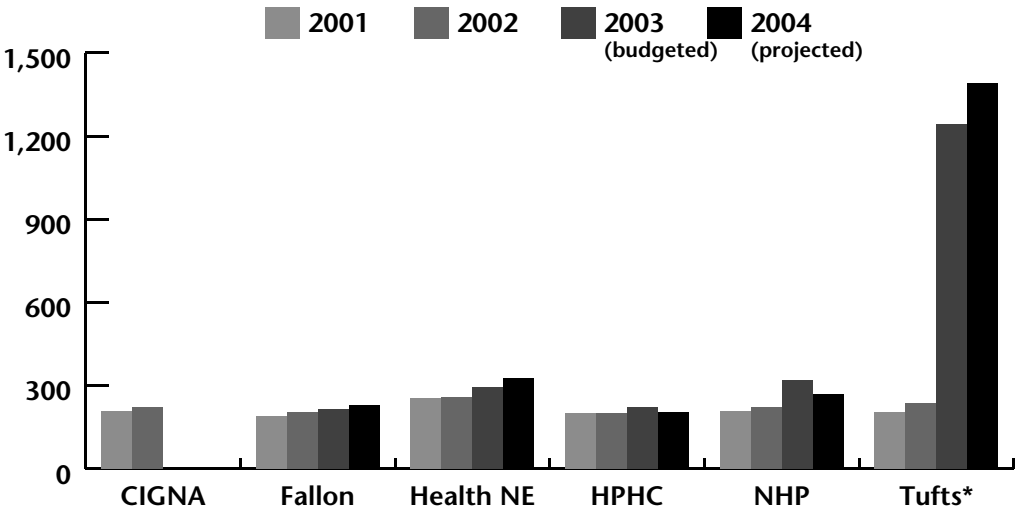


Figure 31. Emergency Services: Visits per 1,000 Members, 2001-2004



* *See page 34.*

Figure 32. Emergency Services: Facility Costs per Encounter (excludes MD fees), 2001-2004

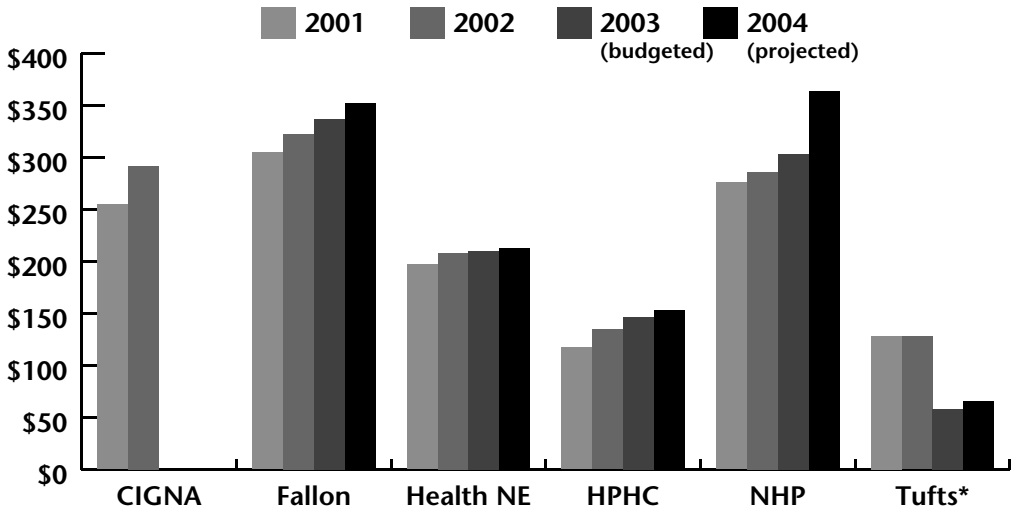


Table 3: Emergency Services, 2001-2002

	Outpatient Hospital Cost PMPM			Physician Services Cost PMPM			Utilization per 1,000 Members			Facility Cost per Encounter		
HMO	2001	2002	Percent Change	2001	2002	Percent Change	2001	2002	Percent Change	2001	2002	Percent Change
CIGNA	$4.43	$5.38	21.4%	$1.28	$1.56	21.9%	208.77	221.60	6.1%	$254.54	$291.58	14.6%
Fallon	$4.05	$4.56	12.6%	$1.26	$2.21	75.4%	188.63	204.70	8.5%	$304.73	$322.49	5.8%
Health NE	$2.49	$2.65	6.4%	$2.56	$2.84	10.9%	253.62	257.42	1.5%	$197.00	$208.00	5.6%
HPHC	$1.95	$2.23	14.4%	$0.00	$0.00	0.0%	199.85	198.97	-0.4%	$116.98	$134.57	15.0%
NHP	$4.78	$5.25	9.8%	$1.59	$1.80	13.2%	208.20	220.40	5.9%	$276.00	$286.00	3.6%
Tufts*	$2.16	$2.51	16.2%	$1.85	$2.07	11.9%	202.86	236.00	16.3%	$128.06	$127.75	-0.2%

** Tufts reported "units" instead of visits for utilization and costs in their budgeted and projected data of emergency services. More than one unit can occur per patient encounter that will affect the facility costs per encounter per unit and therefore, Tufts' numbers are omitted from the range and averages of health plans for 2003 and 2004.*

Figure 33. Outpatient Hospital Surgical Expenses PMPM, 2001-2004

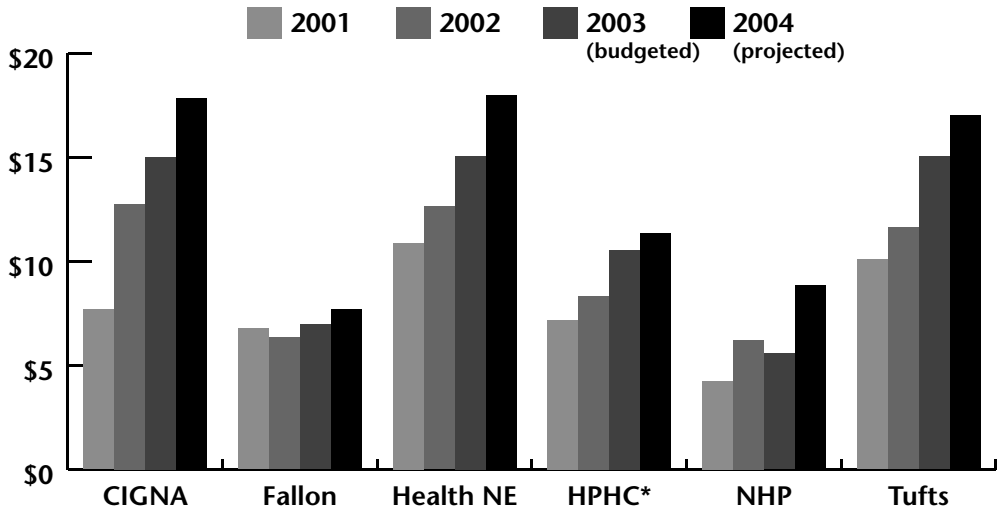
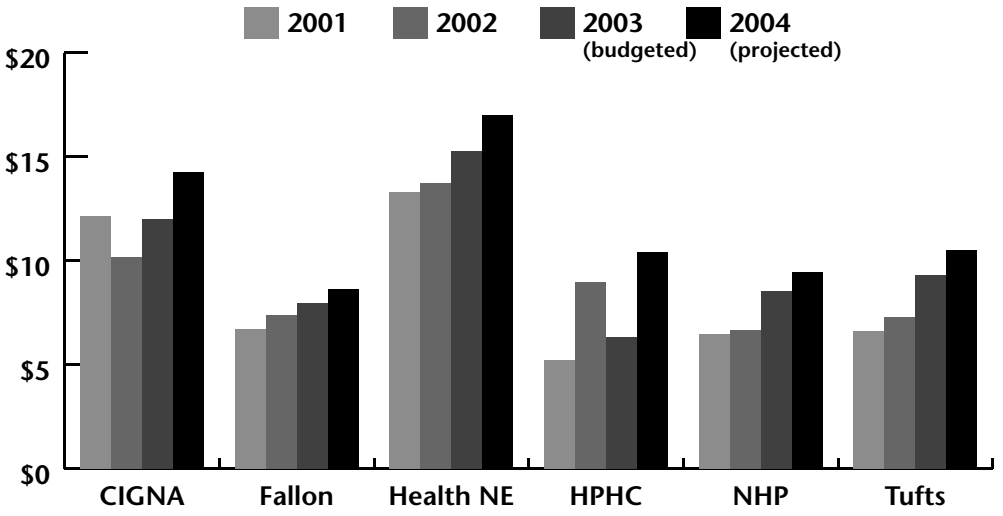


Figure 34. Physician Services: Outpatient Surgery Expenses PMPM, 2001-2004



** HPHC includes non-hospital facility expenses (surgi-centers).*

Figure 35. Outpatient Surgery Visits per 1,000 Members, 2001-2004

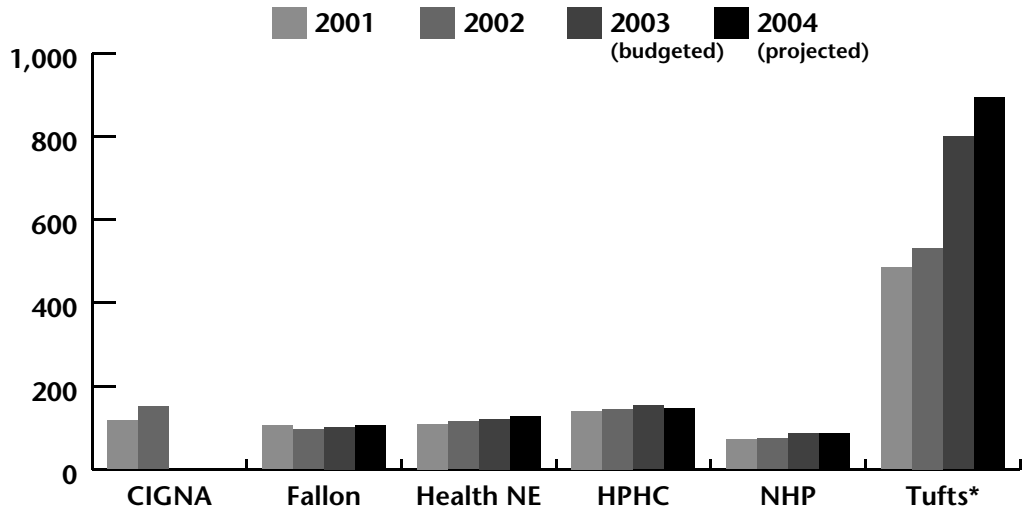


Figure 36. Surgical Ambulatory Visit Facility Costs per Encounter (excludes MD fees), 2001-2004

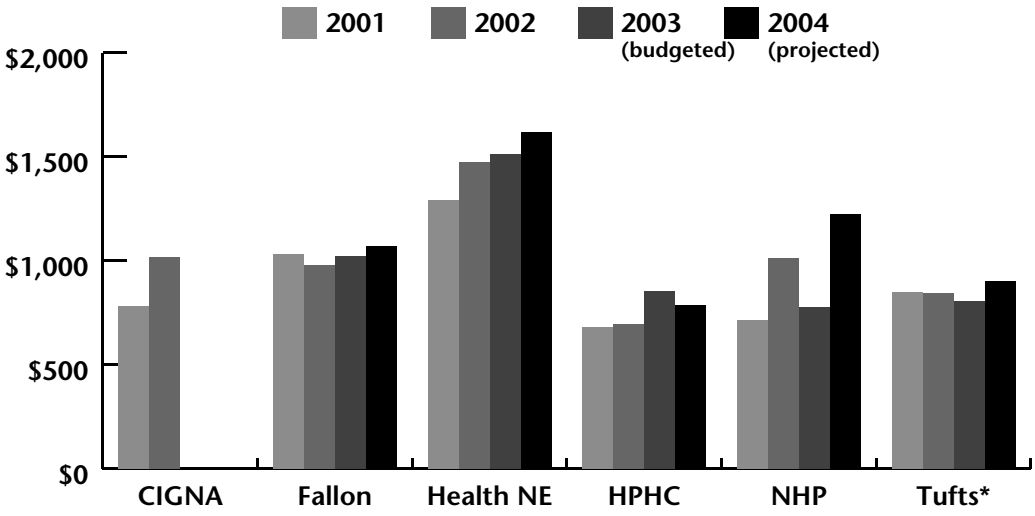


Table 4: Outpatient Surgery, 2001-2002

	Outpatient Hospital Cost PMPM			Utilization per 1,000 Members			Facility Costs per Encounter		
HMO	2001	2002	Percent Change	2001	2002	Percent Change	2001	2002	Percent Change
CIGNA	$7.67	$12.76	66.4%	117.77	150.40	27.7%	$780.93	$1,017.81	30.3%
Fallon	$6.77	$6.32	-6.6%	105.43	96.13	-8.8%	$1,030.42	$978.69	-5.0%
Health NE	$10.87	$12.63	16.2%	108.92	114.67	5.3%	$1,292.00	$1,472.00	13.9%
HPHC	$7.18	$8.34	16.2%	139.43	144.24	3.4%	$681.70	$693.57	1.7%
NHP	$4.23	$6.20	46.6%	71.00	73.70	3.8%	$715.00	$1,010.00	41.3%
Tufts*	$10.08	$11.62	15.3%	485.07	531.37	9.5%	$848.76	$844.25	-0.5%

Outpatient: Surgery

- There was much variation among the plans for expenses, utilization, and facility costs per encounter (see Figures 33 through 36 on pages 35-36). There was at least a two-fold difference between the plans with the highest and lowest percent in each of these categories.

- Fallon was unique in that hospital cost, facility costs per encounter, and utilization decreased while physician costs increased. CIGNA's physician costs decreased 16% while its hospital costs, utilization, and facility costs per encounter increased by 66%, 28%, and 30% respectively (see Table 4 above).

** Tufts reported "units" instead of visits for utilization and cost in their 2001-2004 data. More than one unit can occur per patient encounter that will affect the facility costs per encounter per unit and therefore, Tufts' numbers are omitted from the range and averages of health plans for 2003 and 2004.*

Radiology

For the first time, *Massachusetts HMO Rate Analysis* is reporting information on radiology. This is in response to another Division of Health Care Finance and Policy publication, *Healthpoint* "Diagnostic Imaging: A New Cost Driver," that notes the increases in radiology expenditures.

Technology is a major driver of health care costs. New procedures and technology may be transforming care, but often increase health care costs, even when they lower the unit cost of service.[2] For instance, a new technology may lower the risk of a procedure or make it less invasive, but it then expands the number of eligible patients.[3] In particular, radiology procedures have become widespread throughout the country as advances in technology increase the popularity of painless and non-invasive imaging.

Outpatient: Diagnostic Radiology

- When outpatient diagnostic radiology hospital expenses (see Figure 37 on page 40) and physician expenses (see Figure 38 on page 40) were combined, the average percent change from 2001 to 2002 was higher than the average percent change in total expenses PMPM. However, it was in the same range as total outpatient hospital expenses PMPM.

- From 2001 to 2002 the combined physician and hospital outpatient diagnostic radiology expenses increased for all plans except NHP; NHP's costs decreased 0.9% from 2001 to 2002 (see Table 5 on page 41). Fallon had the highest combined diagnostic radiology cost in 2002 and second greatest percent change from 2001 to 2002 (15.2%).

- Similarly, NHP was the only plan to decrease in diagnostic radiology ambulatory facility costs per encounter (see Figure 39 on page 41). In 2002, Fallon had the highest facility costs per encounter ($228.67) while HPHC had the lowest facility costs per encounter ($130.72).

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[2] Division of Health Care Finance and Policy, "Diagnostic Imaging: A New Cost Driver," Healthpoint, April 2003, Number 27.

[3] Stein, C. "Code Red," The Boston Globe, June 27, 2003.

Figure 37. Outpatient Hospital Diagnostic Radiology Expenses PMPM, 2001-2004

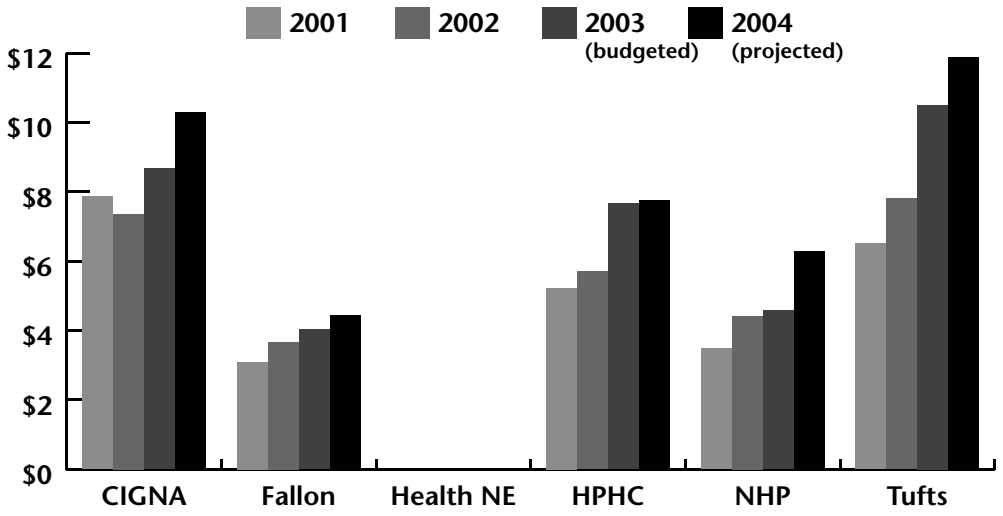


Figure 38. Physician Services: Diagnostic Radiology Expenses PMPM, 2001-2004

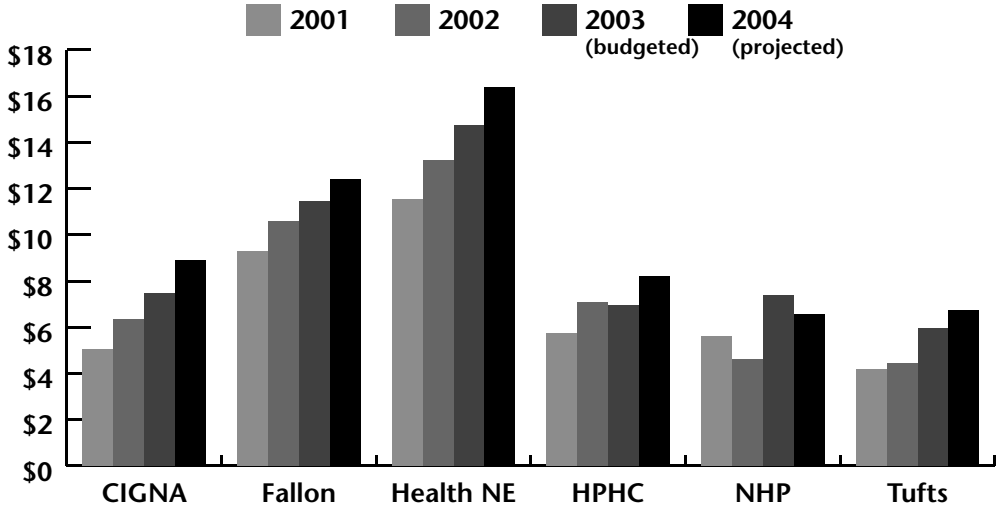
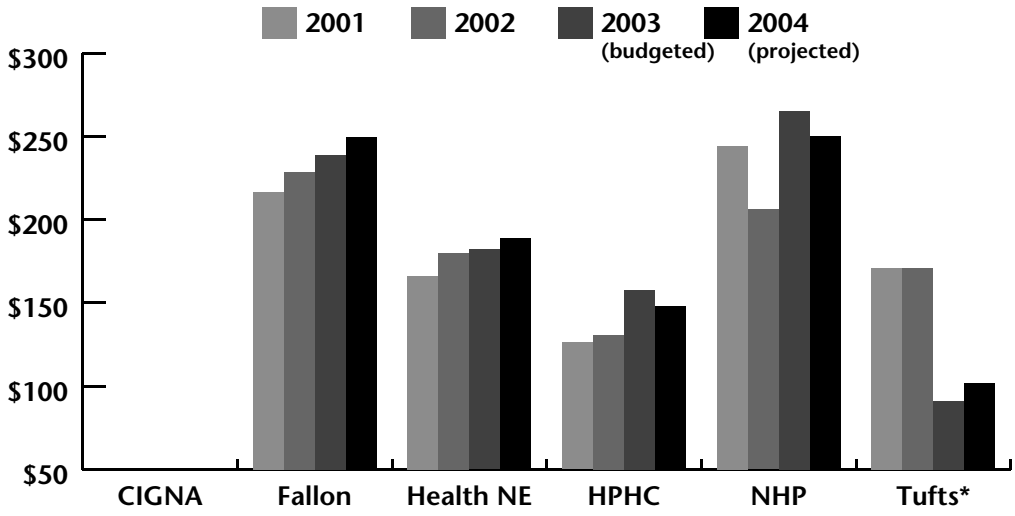


Figure 39. Diagnostic Radiology Ambulatory Facility Costs per Encounter (excludes MD fees), 2001-2004



* See page 42.

Table 5: Diagnostic Radiology, 2001-2002

	Outpatient Hospital Cost PMPM			Physician Services Cost PMPM			Facility Cost per Encounter		
HMO	2001	2002	Percent Change	2001	2002	Percent Change	2001	2002	Percent Change
CIGNA	$7.87	$7.37	-6.4%	$5.02	$6.36	26.7%	N/R	N/R	N/A
Fallon	$3.10	$3.66	18.1%	$9.28	$10.60	14.2%	$216.65	$228.67	5.5%
Health NE	N/R	N/R	N/A	$11.55	$13.22	14.5%	$166.00	$180.00	8.4%
HPHC	$5.23	$5.71	9.2%	$5.73	$7.08	23.6%	$126.22	$130.72	3.6%
NHP	$3.48	$4.42	27.0%	$5.61	$4.59	-18.2%	$244.00	$206.00	-15.6%
Tufts	$6.51	$7.81	20.0%	$4.17	$4.43	6.2%	$170.86	$171.11	0.1%

Outpatient: Therapeutic Radiology

- When outpatient therapeutic radiology hospital (see Figure 40 on page 42) and physician expenses (see Figure 41 on page 43) were combined, the average percent change from 2001 to 2002 was higher than the average percent change in total expenses PMPM and total outpatient hospital expenses PMPM. Although this suggests that therapeutic radiology costs were a driver of the increases in total outpatient hospital expenses PMPM, therapeutic radi-

ology expenses amount to only 10% of diagnostic radiology. Therefore, therapeutic radiology expenses would have to increase 10 times the increase of diagnostic radiology expenses in order to generate the same increase in dollars.

- All plans' combined therapeutic radiology costs increased from 2001 to 2002 with Health NE's combined costs remaining the highest and NHP's costs remaining the lowest among the plans. NHP's combined hospital and physician therapeutic radiology costs were 25% lower than the plan with the next lowest costs, despite an increase of 40.6% in combined therapeutic radiology costs (the highest percent change among the plans) from 2001 to 2002.

- Health NE's therapeutic radiology outpatient facility costs jumped 27% from 2001 to 2002. This contrasts with the three other plans that reported changes from –1% to 7% (see Figure 42 on page 43 and Table 6 on page 44).

Note: Utilization information on diagnostic and therapeutic radiology was not provided and thus, the driver (utilization versus costs) behind the changes in expenses could not be determined.

* *Tufts reported "units" instead of visits for utilization and cost in their budgeted and projected data for diagnostic radiology. More than one unit can occur per patient encounter that will affect the facility costs per encounter per unit and therefore, Tufts' numbers are omitted from the range and averages of health plans for 2003 and 2004.*

Figure 40. Therapeutic Radiology Outpatient Hospital Expenses PMPM, 2001-2004

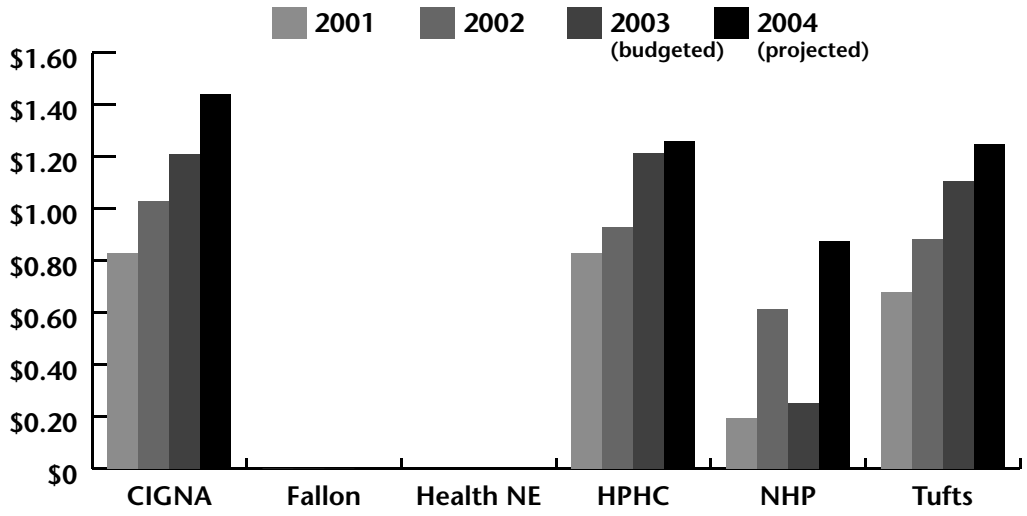


Figure 41. Therapeutic Radiology Physician Services Expenses PMPM, 2001-2004

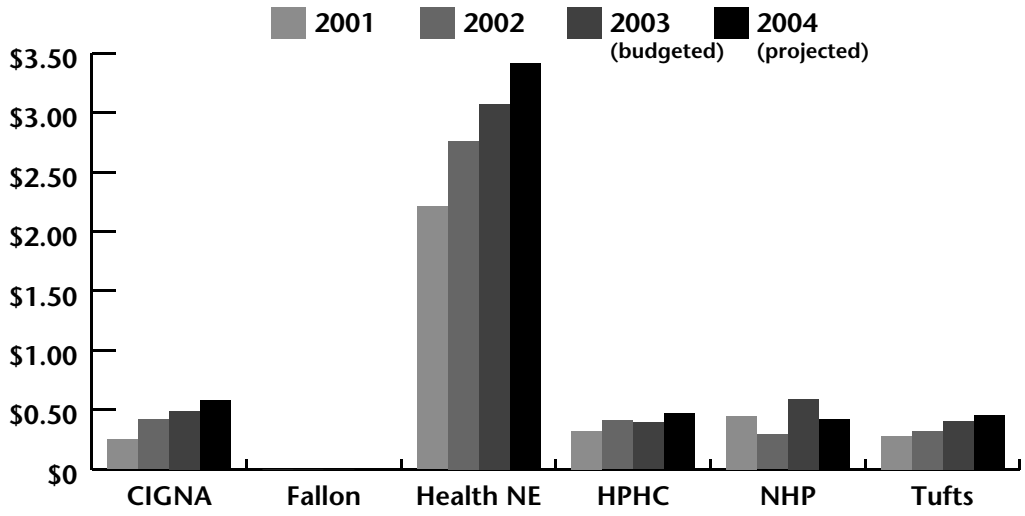
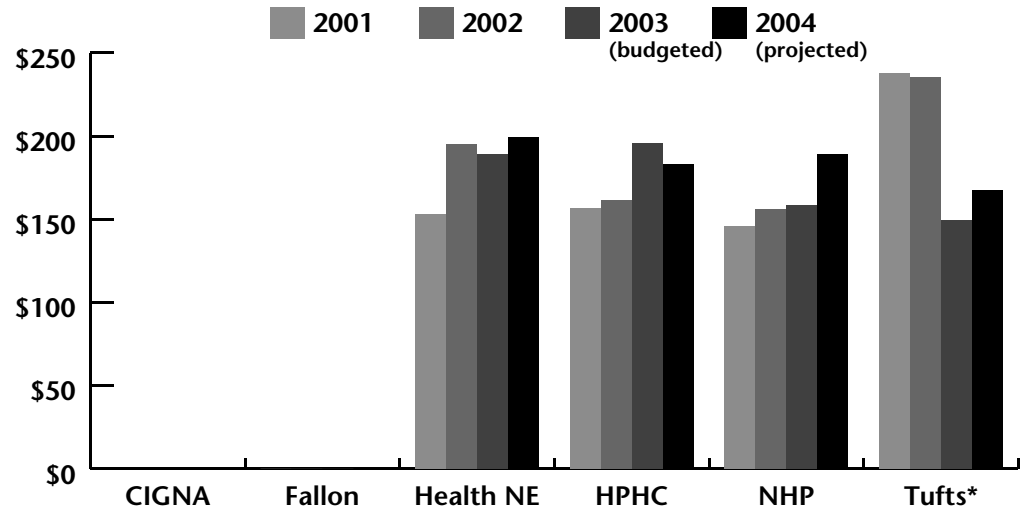


Figure 42. Therapeutic Radiology Outpatient Facility Costs per Encounter (excludes MD fees), 2001-2004



* *See page 42.*

Table 6: Therapeutic Radiology, 2001-2002

	Outpatient Hospital Cost PMPM			Physician Services Cost PMPM			Facility Cost per Encounter		
HMO	2001	2002	Percent Change	2001	2002	Percent Change	2001	2002	Percent Change
CIGNA	$0.83	$1.03	24.1%	$0.25	$0.42	68.0%	N/R	N/R	N/A
Fallon	$0.00	$0.00	0.0%	$0.00	$0.00	0.0%	$0.00	$0.00	0.0%
Health NE	N/R	N/R	N/A	$2.21	$2.76	24.9%	$153.00	$195.00	27.5%
HPHC	$0.83	$0.93	12.0%	$0.32	$0.41	28.1%	$156.60	$161.26	3.0%
NHP	$0.19	$0.61	221.1%	$0.45	$0.29	-35.6%	$146.00	$156.00	6.8%
Tufts	$0.68	$0.88	29.4%	$0.28	$0.32	14.3%	$237.73	$235.39	-1.0%

Mental Health/Substance Abuse and Intermediate Care

Inpatient and Outpatient: Mental Health/Substance Abuse and Intermediate Care

Mental health and substance abuse (MH/SA) problems are often at risk of being under-diagnosed; higher rates of care may indicate that more patients with mental health disorders have been appropriately identified and treated. Whenever possible, it is preferable to treat people in the least intensive setting that is appropriate since high quality outpatient and intermediate care may reduce the need for inpatient care. Therefore, a high ratio of outpatient and intermediate visits to inpatient admissions may indicate that a MH/SA system is performing well. Equally, if not more, important is that overly restrictive admission criteria not be the cause of low admission rates. If admission criteria are too strict, people who need to be admitted—those who may pose a threat to themselves or someone else—may be excluded.

Question plans about their admission criteria if their outpatient utilization and admission rates are both low. Ask about the financial arrangements between an HMO and its MH/SA clinicians. Do payments to MH/SA clinicians take into account quality of care? If so, how, and to what extent? Do the reimbursement arrangements create incentives to reduce utilization that could result in impaired quality?

- In 2002, all plans decreased their inpatient MH/SA expenses PMPM (see Figure 43 on page 46), except for CIGNA and NHP. CIGNA's inpatient MH/SA expenses PMPM in 2002 was more than twice the amount of its expenses in 2001.

- Although NHP maintained low inpatient MH/SA expenses PMPM, it had a large percent increase of 34.7% from 2001 to 2002, which seems to be driven by its 35.5% increase in utilization (see Table 7 on page 49). However, NHP is particularly susceptible to the rarity of event biasing outcomes because NHP has such a small commercial population. Thus, the variation seen in utilization suggests poor comparability of data from year to year within the plan.

- Even though Tufts' inpatient MH/SA expenses PMPM decreased from 2001 to 2002, it remained the highest among the plans because of its high utilization and facility costs per day.

- From 2001 to 2002 MH/SA admissions per 1,000 members (see Figure 44 on page 47), decreased for all plans with the exception of NHP, which has consistently had reporting discrepancies and therefore may not be reporting reliable information. In 2002, MH/SA inpatient acute days per 1,000 Members (see Figure 45 on page 47) decreased among all plans except CIGNA and NHP. Again, NHP's data reflect the consistent pattern of alternating high and low numbers every other year. HPHC and possibly CIGNA may be reporting inaccurate numbers from 2001 to 2002 for MH/SA facility cost per day (see Figure 46 on page 48) as these plans show increases of 218% and 117% respectively. Facility costs per day decreased for the remaining plans.

- In contrast with facility expenses, physician service expenses PMPM for inpatient and outpatient mental health care has risen for each plan except HPHC (see Figure 47 on page 48). However, HPHC budgeted for an 85% increase from 2002 to 2003 followed by a 36% decrease in 2004. These HPHC numbers and NHP's reported increase of 586% from 2001 to 2002 raise concerns about comparability of data across years within a plan.

- Outpatient MH/SA expenses PMPM (see Figure 48 on page 49) decreased significantly from 2001 to 2002 for CIGNA and NHP, while expenses for the other plans increased. Again, the enormous variation in NHP's numbers suggests data reporting issues. CIGNA's 60% decrease

(continued on page 49)

Figure 43. Inpatient: Mental Health/Substance Abuse Expenses PMPM, 2001-2004

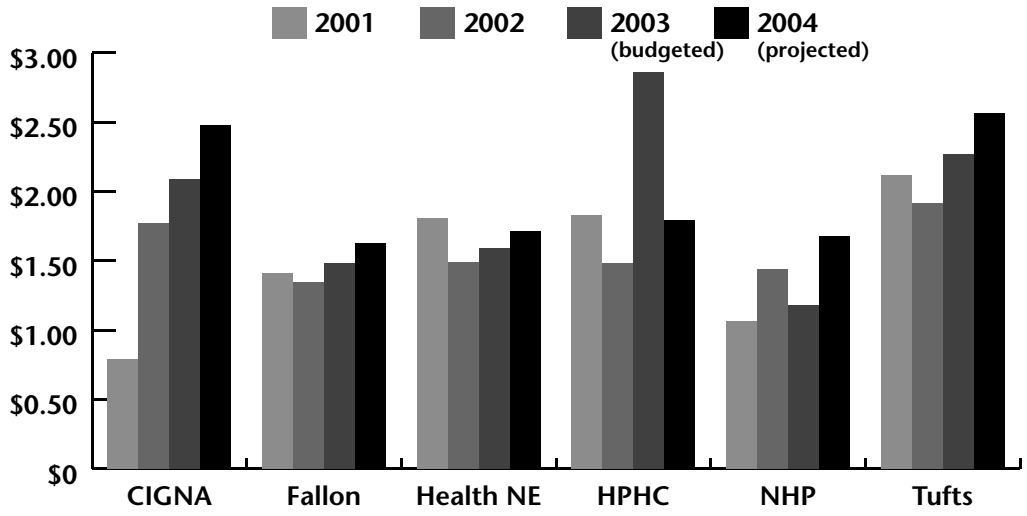


Figure 44. Mental Health/Substance Abuse Admissions per 1,000 Members, 2001-2004

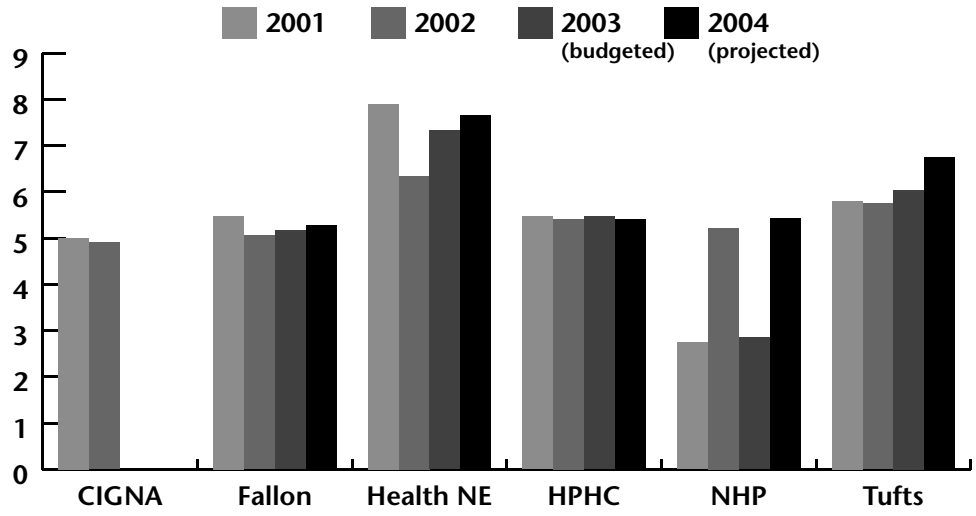


Figure 45. Mental Health/Substance Abuse Inpatient Acute Days per 1,000 Members, 2001-2004

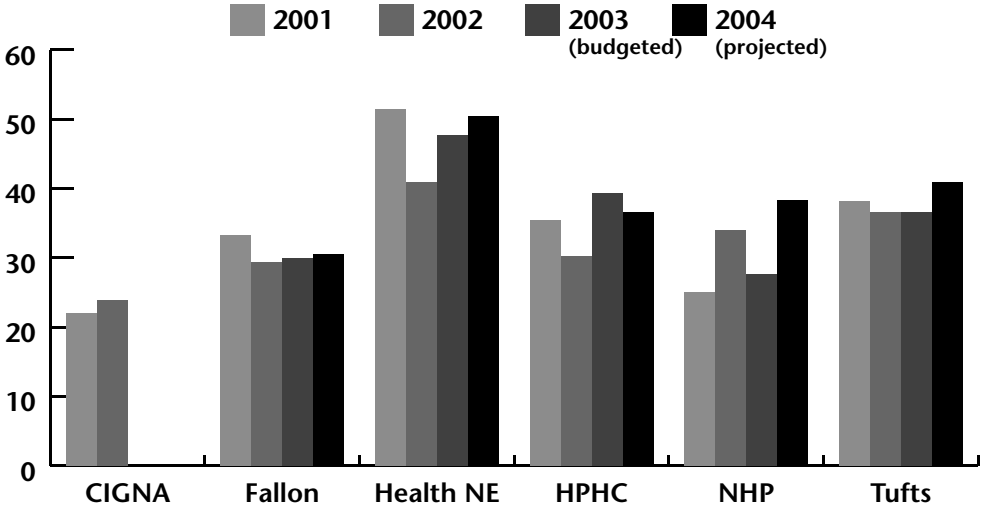


Figure 46. Mental Health/Substance Abuse Facility Costs per Day, 2001-2004

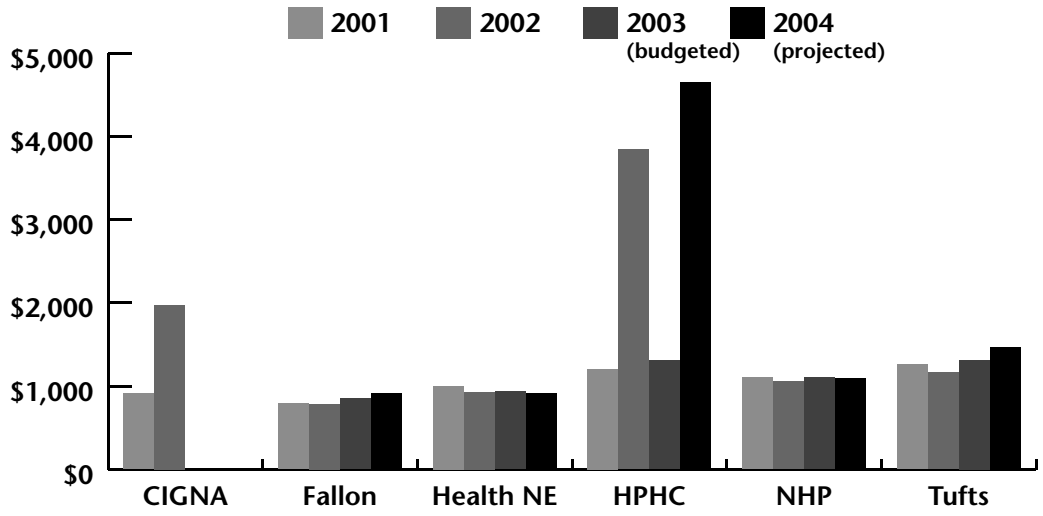


Figure 47. Physician Services: Inpatient and Outpatient Mental Health/Substance Abuse Expenses PMPM, 2001-2004

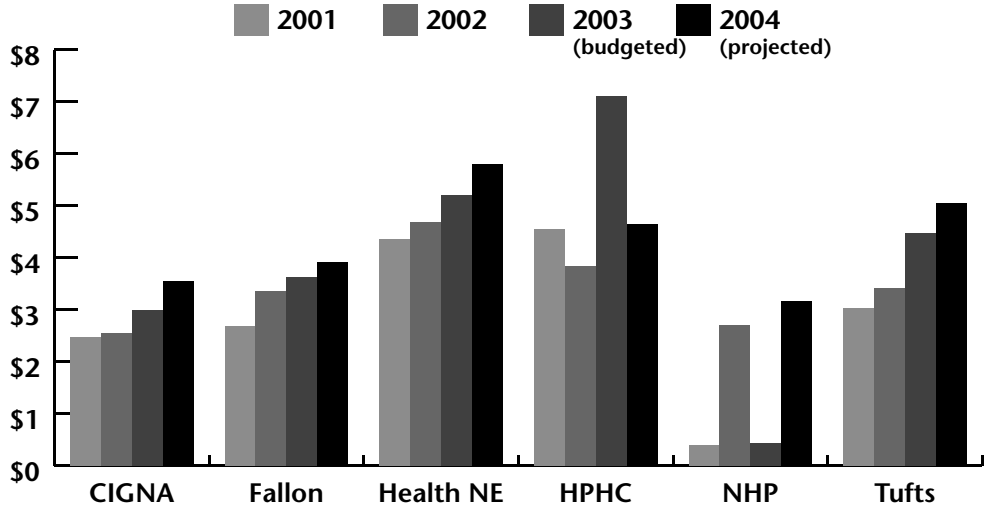
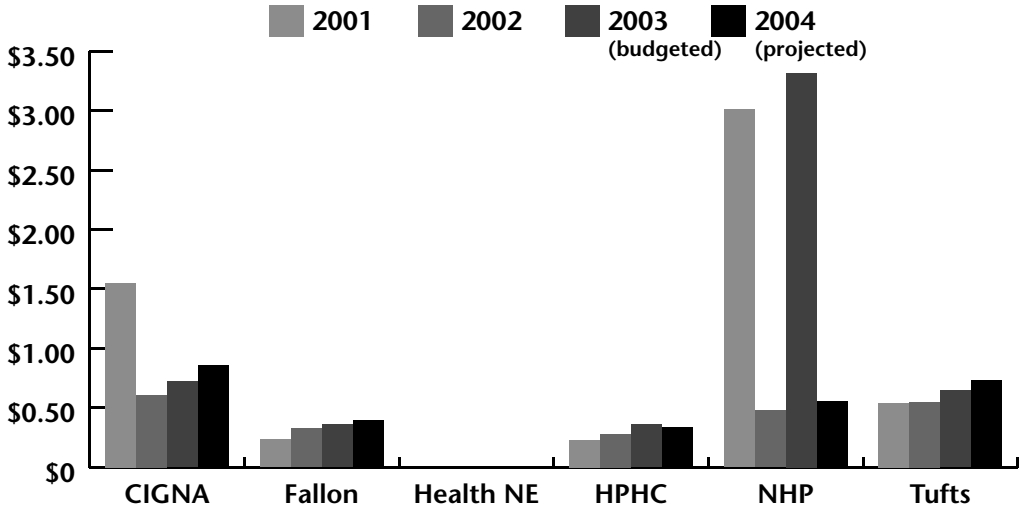


Table 7: Inpatient Mental Health/Substance Abuse, 2001-2002

	Expenses PMPM			Inpatient Hospital Days per 1,000 Members			Admissions per 1,000 Members			Inpatient Facility Cost per Day		
HMO	2001	2002	Percent Change	2001	2002	Percent Change	2001	2002	Percent Change	2001	2002	Percent Change
CIGNA	$0.79	$1.77	124.1%	22.02	23.85	8.3%	5.00	4.91	-1.8%	$910.10	$1,974.87	117.0%
Fallon	$1.41	$1.34	-4.5%	33.28	29.33	-11.9%	5.48	5.06	-7.7%	$789.45	$787.55	-0.2%
Health NE	$1.81	$1.49	-17.7%	51.83	40.91	-21.1%	7.90	6.35	-19.6%	$999.00	$928.00	-7.1%
HPHC	$1.83	$1.48	-19.1%	35.42	30.22	-14.7%	5.47	5.42	-0.9%	$1,208.09	$3,841.34	218.0%
NHP	$1.07	$1.44	34.7%	25.10	34.00	35.5%	2.80	5.2	85.7%	$1,103.00	$1,057.00	-4.2%
Tufts	$2.12	$1.91	-9.7%	38.07	36.60	-3.9%	5.80	5.75	-0.9%	$1,259.01	$1,164.75	-7.5%

Figure 48. Outpatient Mental Health/Substance Abuse Expenses PMPM, 2001-2004



in expenses is also suspicious, especially in light of a nearly 16% increase in visits per 1,000 population. MH/SA visits per 1,000 members increased for each plan except NHP (see Figure 49 on page 50). Further analysis is required to understand what may be driving these changes in outpatient MH/SA expenses PMPM.

- Only three plans submitted information on intermediate MH/SA cost per encounter (see Figure 50 on page 50).

Figure 49. Mental Health/Substance Abuse Visits per 1,000 Members, 2001-2004

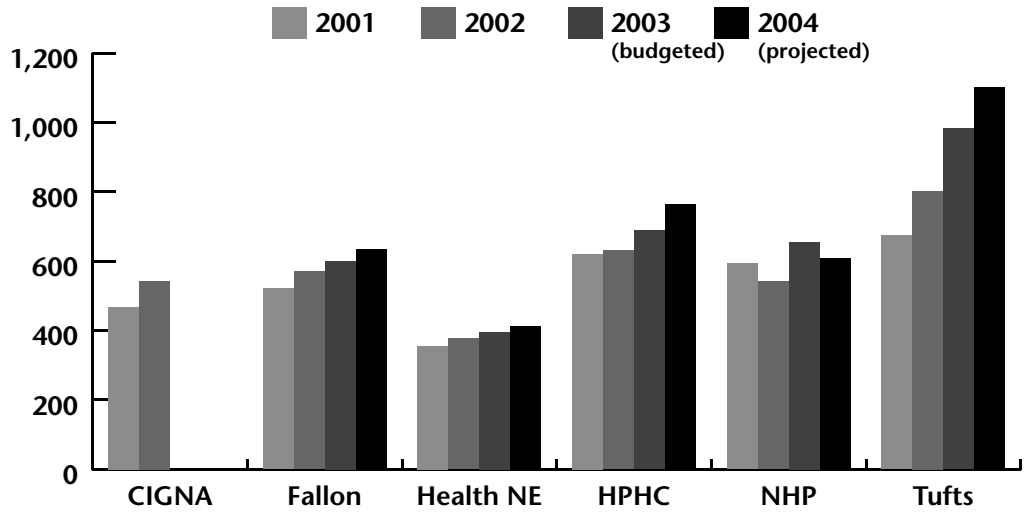
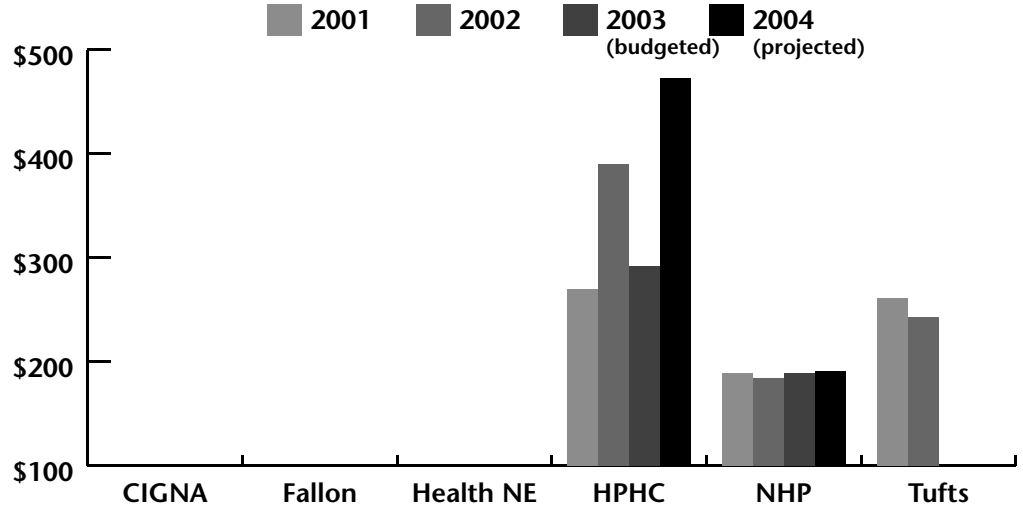


Figure 50. Intermediate Mental Health/Substance Abuse Cost per Encounter, 2001-2004



Outpatient Pharmacy

Higher-than-average pharmacy expenditures may be attributed to either high drug utilization rates (from new drugs and/or more prescriptions for existing drugs), and/or high costs per prescription. Higher-than-average drug utilization, for example, may be due to poor oversight of a plan's physicians' prescribing practices or may reflect an alternative to utilization of other care types.

A limited list of drugs (formulary) for which plan physicians can prescribe might be cost-effective and provide high-quality care, but it is important to know who decides and what criteria are used to determine which drugs will be on a plan's formulary. Ask your plan what it does to ensure autonomy for the committee that determines a plan's formulary so that there are no incentives to eliminate expensive drugs that are effective and essential.

The majority of plans recorded increases in the number of prescriptions per member per year since 2000. Ask plans whether or not they conduct physician detailing to identify unusual prescribing patterns. If they do, what does the plan do to correct this, and more importantly, what are the results? Some types of physician detailing produce better results than others.

In addition, plans are using other strategies to reduce the use of high-cost drugs including placing more drugs on prior authorization lists, using three tiered benefit designs, step therapy, and introducing disease management interventions.[4] Furthermore, drug manufacturers are influencing consumer demand with direct-to-consumer advertising of pharmaceuticals causing an increase in requests of brand name drugs.[5]

Copayments vary, changing the proportion of drug costs paid by plan members. The proportion of drug costs that members pay can change if the copayment changes and/or if drug costs or utilization changes (even if copayments remain at a fixed-dollar amount).

(continued on page 53)

[4] Mays, G.P., Hurley, R.E., Grossman, J.M., "Consumers face higher costs as health plans seek to control drug spending," Issue Brief No. 45, November 2001, Center for Studying Health System Change, http://www.hschange.com/CONTENT/389/.

[5] Ibid.

Figure 51. Total Outpatient Prescription Drug Expenses PMPM, 1999-2004

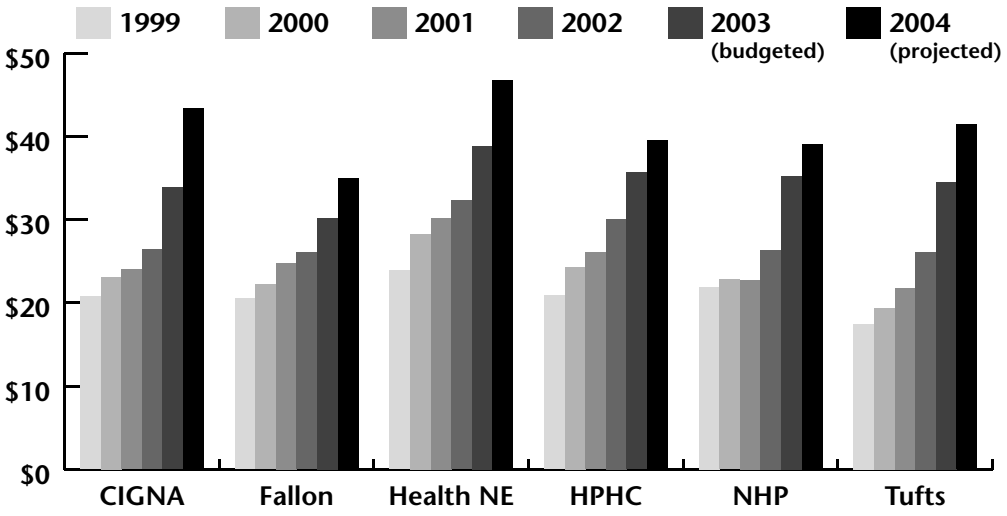


Figure 52. Employee Copayments as a Percent of Total Net Costs, 2000-2004

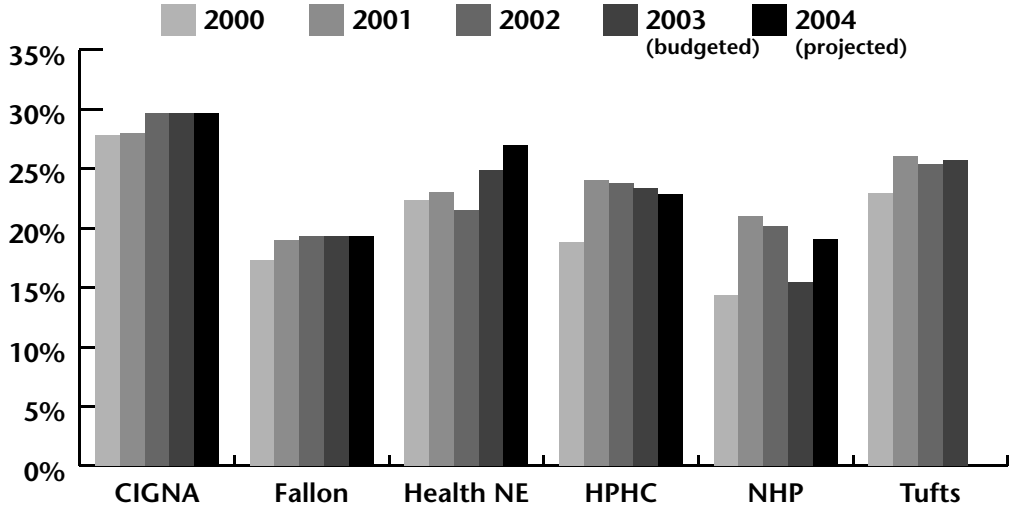
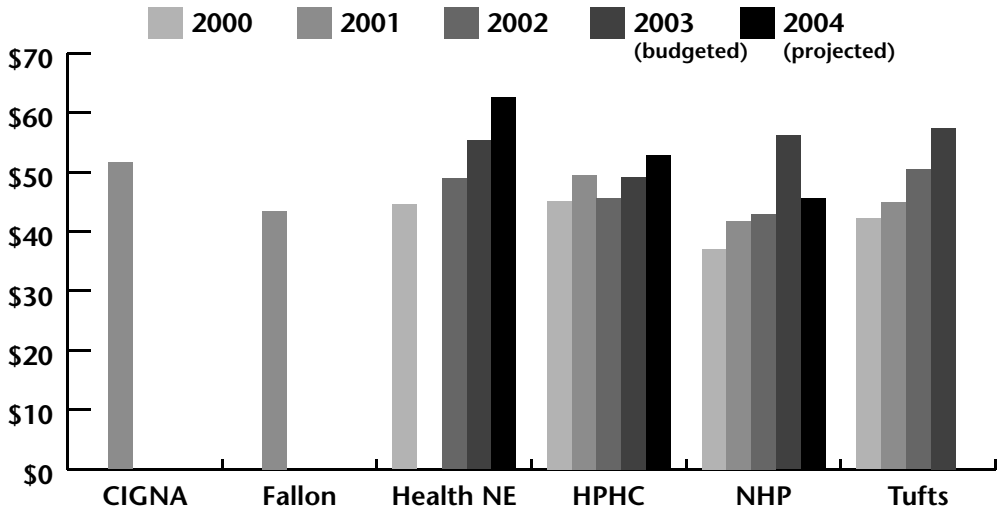


Figure 53. Total Retail Discounted Ingredient Cost per Prescription, 2000-2004



- Every year from 1999 to 2002, all plans increased their total outpatient prescription drug expenses PMPM except NHP, which decreased slightly between 2000 and 2001. Health NE had the highest total outpatient prescription drug expenses PMPM each year from 1999 to 2002 (see Figure 51 on page 52). From 2001 to 2002 the average percent change for total outpatient prescription drug expenses (12.2%) was more than the average percent change for total expenses PMPM, which indicates that it was a driver of total expenses.

- The total outpatient prescription drug expenses PMPM was predicted to increase more than the total expenses again from 2002 to 2003. However, there seems to be a tendency for plans to over-budget for these expenses, as seen earlier (see Figure 4 on page 9).

- From 2000 to 2002, the proportion of outpatient prescription drug costs paid by HMO members (see Figure 52 on page 52) increased for all except Health NE members. Unlike some of the other plans, however, Health NE is predicting that members will pay a greater proportion of drug costs in 2003 and 2004.

- In 2002, Tufts had the highest total retail discounted ingredient cost per prescription (see Figure 53 above), yet its total outpatient prescription drug costs were low—only Fallon had a lower outpatient prescription drug expense PMPM. Fallon and Tufts respectively also had the lowest and next to lowest number of outpatient prescriptions per member (not shown).

Future Steps

- Standardize the data definitions and require plans to report comparable data.
- "Expenses" and "utilization" need to be defined wherever possible to facilitate comparing changes in utilization with changes in costs. For example, radiology costs were reported but radiology utilization was not.
- Physician services expenses need to be further broken down into inpatient, outpatient (not hospital-based), and outpatient hospital visits.

Production Notes

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